GOVERNMENT OF INDIA

RAILWAY DEPARTMENT

(RAILWAY BOARD)

REPORT

BY THE

RAILWAY BOARD

INDIA[illegible]

Vol[illegible]

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CENTRAL PUBLICATION BRANCH
1933

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(2) Classified List and Distribution Return of Officers of all Indian Railways. Published half-yearly. Price Rs. 1-12-0 or 3*s*.

(3) History of Indian Railways, constructed and in progress corrected up to 31st March 1928. Published quinquennially. Price Rs. 5-8-0 or 9*s*.

(4) History of Services of the Officers of the Engineer and Superior Revenue Establishment of State Railways. Published yearly. Price Rs. 23-8-0 or 37*s*.

(5) Pocket edition of the Schedules of dimensions for the 5′ 6″ gauge (revised 1932), price Re. 1 each, 3′ 3⅜″ gauge (revised 1930), price Re. 1 each, 2′ 6″ gauge (revised and reprinted edition, 1930), price annas 5 each, and 2′ 0″ gauge, 1922, price Re. 1 each.

TECHNICAL PAPERS.

(6) Over 279 papers have been published by the Technical Section of the Railway Board's office. The papers comprise:—

(*a*) Original descriptions of railway works and studies of railway problems in India and elsewhere.

(*b*) Reprints of articles from foreign engineering magazines.

(*c*) Reprints or abstracts of reports received by the Government of India on subjects connected with railways.

A complete list of the papers can be obtained *gratis* from the Chief Controller, Standardisation, Central Standards office for Railways, Simla/New Delhi. A few of the more important Technical papers are mentioned below:—

Technical Paper.	*Name.*	*Author.*
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,, [illegible]	[illegible] expenditure . .	G. DEUCHARS.
[illegible]	[illegible] the guide bank	F. J. E. SPRING.
[illegible]	[illegible]anges at . .	SIR ROBERT GALES.
[illegible]	[illegible]ays in . .	H. L. COLE.
[illegible]	[illegible]ling of [illegible] in . .	H. H. SAUNDERS.
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[illegible]	[illegible]lways . .	LT.-COL. L. E. HOPKINS.
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[illegible]	[illegible] Divisional Officer . [illegible]ter and railheads	MAJOR F. H. BUDDEN.
,, 251.	[illegible]intenance of Way Association's [illegible] Railway Bridges. (Reprinted.)	
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,, 277	Description of the Cost Accounting Scheme introduced in the locomotive workshops at Mohgalpura	A. E. HOWELL.
,, 278	Notes on Tube Railway Construction . . .	H. G. SALMOND.
,, 279	Report on Track Practice on American and Canadian Railways	A. F. HARVEY.
,, 280	The Installation of a Production System in the locomotive workshops at Moghalpura . . .	A. E. HOWELL.
,, 281	The Belt System of Repairs introduced in the Locomotive Workshops at Kanchrapara . .	R. DE VERE IRWIN and J. R. POTTER.
,, 282	Note on "Fridera"—A composition for reconditioning abrased spike holes in Railway Sleepers .	S. KRISHNA and T. P. GHOSE.

The prices of the papers vary from annas Three to Rupees Fifteen.

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Volume I

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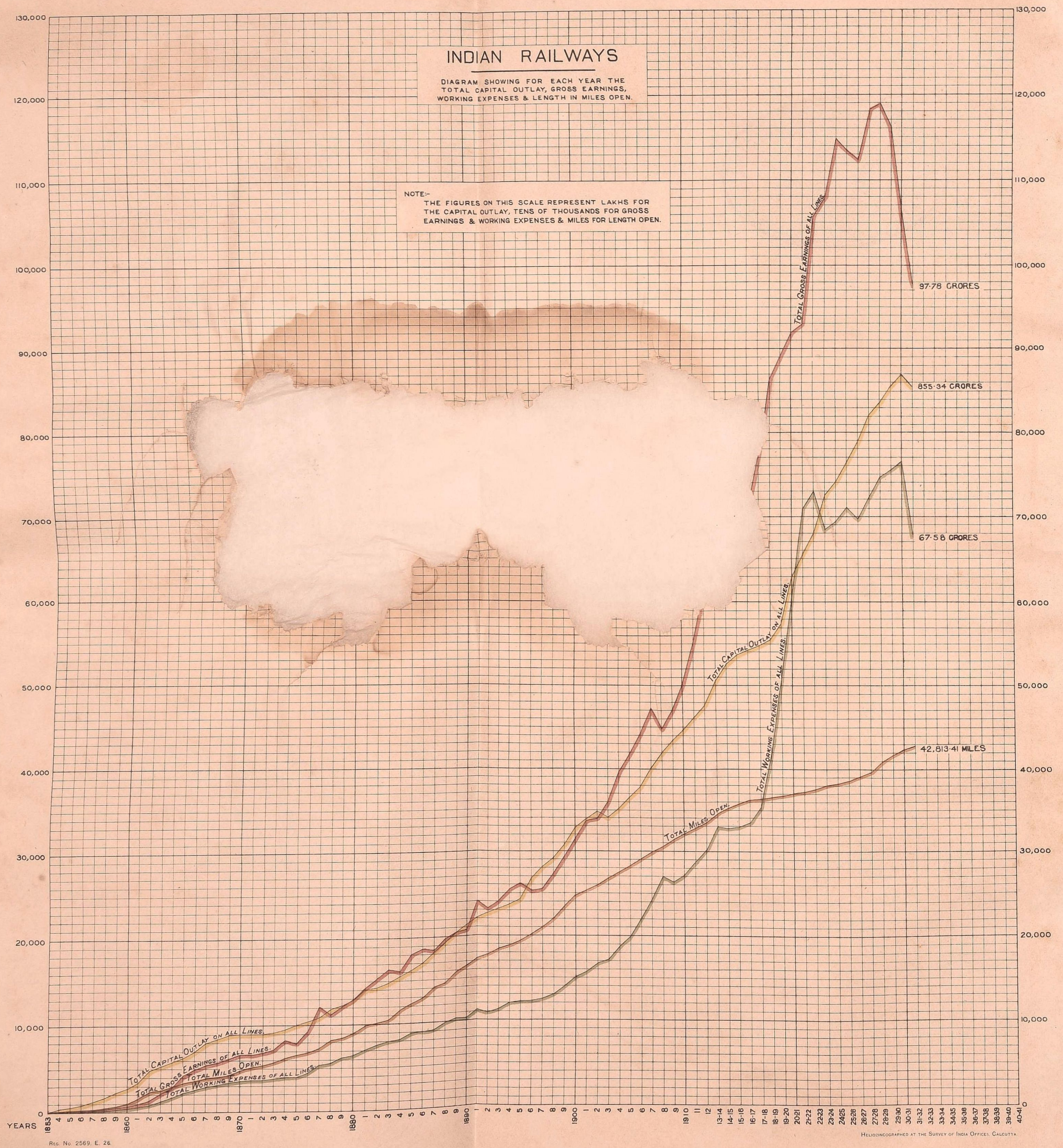

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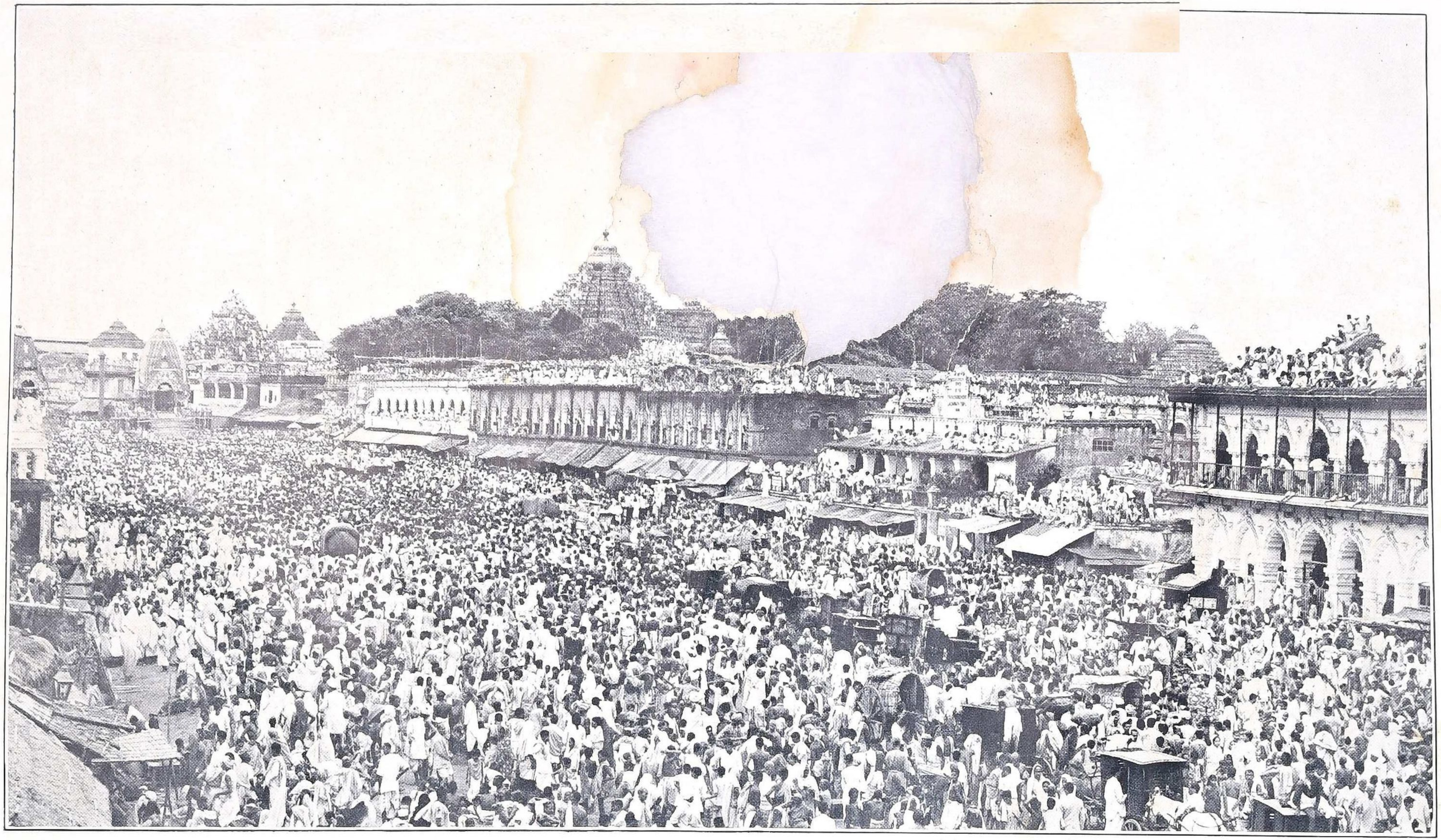


Car festival at Puri.

CHAPTER I.

GENERAL REVIEW.

1. Introduction.—The Railway Board's Annual Report on Indian Railways is published in two volumes. Volume I reviews the general administration, financial results of working of railways and also comments upon items of outstanding interest that occurred during the year. Such matters as the new construction of railway lines and rolling stock, methods of transportation and their modernisation, establishment matters such as the recruitment and the training of staff and measures adopted to ameliorate the conditions of living and improve the welfare of subordinates and other matters, having an important bearing on railway management and operation, are also described. Volume II is a compilation of financial and statistical summaries and statements covering the main heads of the capital and revenue accounts and embracing the complete range of railway working. The period for which the report is prepared is reckoned from the 1st April in one year to the 31st March in the following year.

2. Monsoon conditions and agricultural resu[illegible] primarily an agricultural country, the welfare and general [illegible] whose inhabitants are very largely dependent upon her export[illegible] staple products, a few remarks about the incidence and e[illegible] monsoon rainfall appear to be called for before deali[illegible] connected with railway operation. The monsoon [illegible] tributed, but at few places heavy rains resulted i[illegible] things, damage to crops. On an average, the t[illegible] soon period over the plains of India was only f[illegible] During the latter part of the monsoon perio[illegible] de[illegible] in Burma, Assam, the North-West Frontier P[illegible]njab, but excessive elsewhere. The total rainfall [illegible] was, however, within 25 per cent. of the normal excep[illegible] meagre in Sind and moderately in excess in Berar, Bombay a[illegible]utana.

The season may, on the whole, be regarded as [illegible] good from the agricultural stand-point. Among the principal crops, the output of rice, sugarcane and castor seed was satisfactory, while the yield from jute, cotton, sesamum, groundnuts, linseed and rape and mustard showed a decline. A good yield was obtained from the rice crop, except in Burma, the total production having exceeded the previous year's plentiful harvest by nearly two per cent. Sugarcane also gave a record yield which was 21 per cent. above that of 1930-31. The wheat crop of 1930-31—which was moved mostly during the year under review—also exceeded the average of the previous five years by nine per cent. Following successive large crops during the previous two years, the area under jute cultivation was considerably reduced in 1931 and the production reached only 56 lakhs of bales, being nearly half of the average production for the preceding five seasons. The cotton crop for the year was the lowest since 1921-22, the production being 22 per cent. less than 1930-31. Among oilseeds, castor gave an increased production, while sesamum and groundnut were less productive, being 12 and 15 per cent. less respectively than 1930-31. Linseed, rape and mustard also showed a decline as compared with the preceding season.

3. The depressed state of Indian trade during 1931-32 is reflected in the large decrease which has been recorded in the gross earnings of the railways. The earnings of State-owned lines fell from Rs. 95 crores in 1930-31 to Rs. 86 crores in 1931-32, representing a decrease of approximately Rs. 9 crores. The net loss from the working of State-owned railways was Rs. 9·20 crores. Owing to continued working under loss of the State-owned railways, no contribution was made from railway to general revenues for the year. The decline in earnings was as much due to the fall of passenger traffic as of goods: the earnings from passenger traffic on all railways, both State-owned and

others fell from Rs. 34·3 crores to Rs. 31·4 crores, a decrease of 2·9 crores, while the earnings from goods carried fell from Rs. 64·4 crores to Rs. 58·7 crores, a decrease of Rs. 5·7 crores. The more important decreases in the movement of goods traffic were in the export of jute and cotton and fewer shipments of oilseeds. There was a smaller movement of passengers travelling long and short distances, which also is partly attributable to the general trade depression.

4. Increased mileage.—The railway lines opened during the year under review totalled 570 miles, but due to realignment and closing down of certain small sections the net addition to the mileage of railways during the year under review was 533, of which 442 belong to the State. The total route mileage at the end of the year stood at 42,813. In addition to this, 318 miles were under active construction on 31st March, 1932.

Sanction was also accorded during the year for the construction of certain new lines totalling 82 miles.

5. Railways and the Legislature.—As in the past the Members of the Legislature continued to take an active interest in Railway matters. Out of a total of 3,192 questions answered in the Legislature during the three sessions, 915 referred to Railway matters.

[illegible] questions, three, out of the ten Resolutions on Railway [illegible] ces in the ballot, of which two came up for discussion— [illegible] egislative Assembly and the other in the Council of State— [illegible] was withdrawn.

[illegible] ion referred to the presentation of the Railway Budget [illegible] n of the Central Legislature. The mover stated [illegible] prolonged the Session into very hot weather and [illegible] ilway and the General Budget, being separate [illegible] discussing them separately. Moreover, only six [illegible] discussion of the Railway Budget against eight [illegible] get. The Autumn session being a less heavy sessio[illegible] nd more time could be given for discussion. The Go[illegible] e Resolution, tracing briefly the history of the proposal i[illegible] en Sir Charles Innes, the then Railway Member recommended i[illegible] in which he was supported by Sir Clement Hindley who was Chief Commissioner at the time. It was held, however, that the procedure would necessitate an amendment of Section 67-A of the Government of India Act, which requires that " the estimated annual expenditure and revenue of the Governor General in Council should be laid in the form of a statement before both Chambers of the Indian Legislature in each year " which obviously means each financial year. A separate presentation of the Railway Budget alone would necessitate legislation in Parliament It was therefore decided to postpone further consideration of this question till the Government of India Act comes under revision, and the Resolution was withdrawn.

The second Resolution referred to the purchase of the Bengal and North-Western and Rohilkund and Kumaon Railways. This Resolution, which was adopted on the motion of Government, was based on the report of the Special Committee appointed by the Legislative Assembly to consider what action should be taken when the opportunity to purchase the Bengal and North-Western and Rohilkund and Kumaon Railway systems occurred on 31st December, 1932. The Resolution has been reproduced in paragraph 11 of this Report. In the course of the discussion it was pointed out that though the Railways could have been purchased in December, 1932, the money required for the purchase of the two sections (nearly 12 million sterling) could not be raised without putting an undue strain on India credit or without reducing the power of the Government to finance new expenditure in other directions.

6. Railway Budget.—The Railway Budget for 1932-33 was discussed in detail with the Standing Finance Committee for Railways at their meetings held on the 2nd, 3rd and 4th February, 1932. It was placed before

both the Houses of the Legislature on the 25th February, 1932. The General discussion on the budget took place in the Council of State on the 27th and in the Assembly on the 29th February, 1932. The four succeeding days, *viz.*, from 1st to 4th March, 1932, were taken up with the discussion and voting of the demands for grants in the Assembly.

In the course of the general discussion in the Assembly a very considerable variety of subjects came under review. Some of them, namely, the relation and co-ordination of rail and road transport, the necessity of re-organising the Railway Board, and the recommendations of the Railway Retrenchment Sub-Committee for the appointment of an expert Committee to go into the whole question of Railway Administrations in India were of much importance and interest.

Eight motions for reductions were actually moved during the debates on demands for grants but none was carried. Six of them were negatived and the other two after full discussion were withdrawn by the movers. Of the six motions negatived, two were of great interest and occupied most of the time of the House. One was in connection with the Railway retrenchment policy and the other in connection with the future constitution of the Railway Board. Of the other four negatived, the main motion was to reduce the grant under the head "Railway Board" to Re. 1 for the al[illegible]ed inefficiency of that body. The topics discussed in the remainin[illegible] [illegible] the conveniences of the travelling public, favouritism in the [illegible] Indianisation of the superior service. One of the motions w[illegible] to draw attention to the inadequate representation of M[illegible] way Services.

7. Standing Finance Committee for Railw[illegible] six times in the year. Besides scrutinising the [illegible] ways and discussing the budget estimates of 1[illegible] proposals for the creation of certain superio[illegible] railways, [illegible] recommendations in Sir Arthur Dickinson'[illegible] the subject of inclusion of overhead charges and interest in th[illegible] undertaken in railway workshops and in the issue price of stores [illegible] of coal used on railways.

8. Meetings with Agents of Railways and Local Governments.—Two meetings were held by the Railway Board with Agents of the principal Railways during the year under review.

The following were included in the subjects discussed :—

(1) Retrenchment of Staff.

(2) Collection of pilgrim taxes by railways.

(3) Railway Staff Benefit Fund on State Railways.

(4) Co-operative Credit Societies.

(5) Mileage Coupons.

(6) Report of the Royal Commission on Labour.

Twenty-three visits were paid by the Chief Commissioner, Financial Commissioner and Members of the Railway Board to the headquarters of the Railway Administrations and seven to Local Governments and to Indian States. Copies of tour programmes of the Hon'ble Member for Railways, the Chief Commissioner, the Financial Commissioner and Members of the Board were sent in advance to Local Governments and important Mercantile Associations as well as to the Press—thus giving facilities for discussions on important subjects.

9. Local Railway Advisory Committees.—These Committees, reference to which has been made in previous reports, have continued to function on all Class I Railways (except the Jodhpur Railway) and on the Barsi Light Railway. Their advice on matters coming within their purview is welcomed by Railway Administrations who endeavour to give effect to the recommendations made by the Committees to the extent possible.

During the year under review 110 meetings of the various Committees were held—Particulars of the subjects discussed at these meetings and the

action which the Railway Administration concerned decided to take thereon are embodied in pamphlets published quarterly by the Railway Board. The following is a list of some of the more important matters discussed :—

Provision of buffet cars for Indian refreshments.

Passenger fares.

Charges for porterage at stations.

Provision of oriental type lavatories in railway carriages and waiting rooms.

Construction of new lines.

Improvements to rolling stock.

Provision of additional waiting rooms and bathing places on platforms.

Provision of level crossings and overbridges.

Provision of raised platforms.

Running of trains for pilgrimages.

Enquiry Offices at stations.

Issue of return tickets at reduced fares.

[illegible]intment of Traffic Canvassers.

[illegible]ickets for motor cars.

[illegible] **Rates Advisory Committee.**—The Railway Rates Advi[illegible] was constituted in 1926, continued to function under [illegible] Narasimha Sarma, K.C.S.I., late Law Member of His [illegible]ecutive Council. During the year the following [illegible]e Committee for investigation and report :—

(i) Complai[illegible]e Indian Ginning and Pressing Co., Ld., Ahmeda[illegible] the Bombay, Baroda and Central India Railway, al[illegible]scrimination in the rates for cotton, full-pressed in favour [illegible] Viramgam, Jhund and Patri as against the rate from Ahmedabad to Bombay.

(ii) Complaint from the Colliery Owners' Association, Chhindwara, regarding the rates charged by the Bengal Nagpur and Great Indian Peninsula Railways for coal from stations in the Central Provinces situated on the Bengal Nagpur Railway, and in regard to the facilities for the through booking of coal from those stations to stations on the Great Indian Peninsula Railway and beyond.

As regards the first case, the complaint was withdrawn by the applicant after the first hearing of the case, while the second case was still under enquiry at the close of the year.

In February 1931 the services of the Railway Rates Advisory Committee were placed at the disposal of the Commerce Department for the investigation of a complaint from the pioneer Motor Boat Co., Dacca, alleging an undue reduction in the passenger fares between Serajdhika and Dacca, by the India General Navigation and Railway Co., Ltd., and the Rivers Steam Navigation Co., Ltd. The Committee was engaged on this case for about a month.

Owing to the President and the Railway Member of the Committee proceeding on 5½ months leave from about the middle of April 1931, the sittings of the Committee were temporarily suspended during that period. The suspension of the sittings of the Committee did not, however, preclude the submission of applications to the Railway Department and Agents of Railways in accordance with the procedure in force. Preliminary enquiries in connection with such applications continued to be made and those which were to be submitted to the Committee were sent to them when the Committee resumed their sittings in October 1931.

The expenditure on the Committee from April 1926 has been as follows :—

	Rs.
1926-27	1,38,000
1927-28	1,48,000
1928-29	1,67,000
1929-30	1,56,000
1930-31	1,64,000
1931-32	1,34,000

The question as to the possibility of reducing the cost of the Committee has engaged the attention of the Railway Board, and in October 1931, the Railway Retrenchment Sub-Committee reported on the work of this Committee and recommended that the Railway Rates Advisory Committee as such should be abolished but considered that an *ad hoc* Committee, appointed from time to time to deal with cases as they arose, should be sufficient to meet the requirements of the public and were of opinion that, with the institution of an *ad hoc* Committee, the expenditure ought not to be more than Rs. 50,000 a year. The Railway Board, while accepting the recommendation of the Retrenchment Committee, did not consider that an *ad hoc* Committee to deal with each case as it arose would be a suitable arrangement but in order to meet the recommendation of the Railway Retrenchment Committee, considered that the Committee might ordinarily be employed for not more than six months during the year, within which time it would probably now be possible for the Committee to deal with the cases referred to them, there having been recently a decrease in the number of applications for reference to the Committee. It was accordingly decided :—

(*a*) to abolish the post of Secretary.

(*b*) to retain the services of the President on emoluments which would not exceed Rs. 24,000 for the financial year so long as the number of applications referred to the Committee does not necessitate its remaining in session for a longer period than six months in any one year, the details of the President's emoluments being as follows :—

(*i*) a retaining fee of Rs. 1,000 per mensem throughout the year,

(*ii*) a salary of Rs. 3,000 per mensem (instead of Rs. 4,000 per mensem) in addition to the retaining fee, for periods during which the President is employed on cases,—both the retaining fee and the salary to be subject to the 10 per cent. cut.

(*c*) the Railway Member who has hitherto been a whole-time member with a fixed salary of Rs. 3,000 a month, to be selected from Railway Administrations for each case, drawing his substantive pay *plus* a special pay of Rs. 300 a month during the period in which the Committee sits.

(*d*) the office staff to be reduced from ten to three, for the period during which the Committee is not functioning. For the period during which the Committee is functioning additional staff, not exceeding five, may be appointed temporarily as and when actually required.

By adopting the measures outlined above, and provided that there is no considerable increase in the number of cases to be referred to the Committee, it should be possible to reduce the expenditure of the Committee to Rs. 50,000 annually as compared with the average annual expenditure of about Rs. 1,50,000 since the establishment of the Committee.

Steps were taken to give effect to the above arrangement from the 1st April 1932.

11. Extension of Contracts of the Bengal and North-Western and Rohilkund and Kumaon Railways.—Under the terms of the contracts with the Bengal and North-Western and Rohilkund and Kumaon Railway

Companies, the Secretary of State had the option to determine the contracts and acquire the Company-owned sections of the two railways on the 31st December 1932 by giving 12 months' notice of purchase. In the event of the option not being exercised, the contracts continue till their expiry by efflux of time in 1981. The question whether this option should be exercised (in which case the necessary notice had to be given by 31st December 1931) or what other action, if any, should be taken, was referred to a committee of the Legislative Assembly which was appointed for the purpose in terms of a motion adopted by the Assembly on 1st April 1931. The report of this Committee was laid on the table of the Legislative Assembly on the 9th September 1931, and on the 3rd of the next month the Assembly adopted the following Resolution:—

> "This Assembly recommends to the Governor General in Council that, in accordance with the recommendations of the Committee appointed by the Assembly on the 1st April 1931 to consider what action should be taken when the opportunity to purchase the Bengal and North-Western and Rohilkund and Kumaon Railway systems occurs on the 31st of December, 1932:—
>
> (1) the Government should enter into negotiations with the two Companies to obtain from them an option to purchase the lines on the most favourable terms on the 31st December 1937, subject to one year's notice, or if possible, on the 31st December of any earlier year, again subject to one year's notice;
>
> (2) the question whether the working of the Tirhut Railway should be entrusted to the Bengal and North-Western Railway Company during the 5 years (or shorter period), for which it is suggested that the option to purchase the Bengal and North-Western Railway should be obtained, should be determined by the terms on which it is possible to obtain this option and to arrange with the Company for working the Tirhut Railway during this period;
>
> (3) the question whether the working of the Lucknow-Bareilly State Railway should be entrusted to the Rohilkund and Kumaon Railway Company during the 5 years (or shorter period) for which it is suggested that the option to purchase the Rohilkund and Kumaon Railway should be obtained, should be determined by the terms on which it is possible to obtain this option and to arrange with the Company for working the Lucknow-Bareilly State Railway during this period;
>
> (4) in the event of its proving impossible to reach agreement with the Bengal and North-Western and Rohilkund and Kumaon Railway Companies on the terms recommended in (1), the Government should explore other lines for reaching agreement which would ensure to the Government the opportunity to purchase on reasonable terms; and the Government should again consult a committee of the Assembly for the purpose of reconsidering the position."

Negotiations were accordingly initiated by the Secretary of State with the Boards of Directors of the two Companies, and, as a result, it has now been arranged that the Secretary of State will have the option to terminate the contracts with the two companies either in 1937 or in 1942, on giving 12 months' previous notice, and that in the meantime the Companies will continue to work the State-owned sections (*viz.*, the Tirhut and the Lucknow-Bareilly), the terms of working these latter sections being as from 1st January 1933 revised so as to provide that the amount of surplus profits payable to the Companies should be reduced by one-half in the case of the Tirhut section and by 10 per cent. in the case of the Lucknow-Bareilly section.

CHAPTER II.

FINANCE.

12. The principal results of working of railways are summarised in the table below :—

Particulars.		Class I Railways.	Other Railways.	Total of all Railways.
(*i*) Total route mileage open for traffic.	1930-31	38,020	4,261	42,281
	1931-32	**38,460**	**4,353**	**42,813**
(*ii*) Number of passengers originating.	1930-31	542,062,100	33,764,400	575,826,500
	1931-32	**475,513,000**	**30,323,400**	**505,836,400**
(*iii*) Number of passenger miles.	1930-31	19,708,551,000	779,675,000	20,488,226,000
	1931-32	**17,339,974,000**	**716,844,000**	**18,056,818,000**
(*iv*) Tons originating .	1930-31	79,658,000	3,719,000	83,377,000
	1931-32	**71,064,000**	**3,511,000**	**74,575,000**
(*v*) Number of ton miles .	1930-31	20,145,778,000	260,699,000	20,406,477,000
	1931-32	**18,106,542,000**	**240,223,000**	**18,346,765,000**

13. Trade Review.—The world depression in trade was more severely felt in India during the year 1931-32 than in the previous year, with the result that there was a decline of Rs. 65 crores in exports and Rs. 39 crores in imports as compared with 1930-31, the total value of exports of merchandise from British India in 1931-32 being Rs. 161 crores and that of imports Rs. 126 crores, this was one of the chief factors for the decline in railway earnings for the year as compared with 1930-31, a year none too prosperous.

Exports.—The principal feature on the export side was a further heavy fall in the shipments of raw jute and jute manufactures. The total weight of raw and manufactured jute exported fell from 1,386,000 to 1,250,000 tons and the value from Rs. 44·78 to 33·11 crores. Exports of raw jute declined from 3,471,000 to 3,285,000 bales in quantity and from Rs. 12·88 to 11·19 crores in value. Shipments of gunny bags receded from 434 to 389 millions in number and from Rs. 14·62 to 10·94 crores in value. The yardage of gunny cloth also recorded a fall from 1,271 to 1,021 millions and the value from Rs. 16·87 to 10·45 crores. Under cotton raw and manufactured there was a decline of Rs. 23·34 crores. Shipments of raw cotton fell from 3,926,000 bales in 1930-31 to 2,369,000 bales in 1931-32 and the value from Rs. 46·33 to 23·45 crores. Despatches of cotton twist and yarn contracted from 23·5 to 22 million lbs. in quantity and from Rs. 1·58 to 1·28 crores in value. Exports of wheat amounted to only 20,200 tons as against 196,500 tons in the preceding year. Exports of tea fell in quantity by 14·7 million lbs. to 341·5 million lbs. and in value by Rs. 4·12 crores to 19·44 crores. Shipments of oilseeds declined from 1,037,000 tons valued at Rs. 17·86 crores to 988,000 tons valued at Rs. 14·59 crores. Exports of linseed declined from 257,000 to 120,000 tons and those of cotton seed from 41,300 to 11,700 tons. Consignments of hides and skins declined from 63,000 tons valued at Rs. 11·74 crores to 49,000 tons valued at Rs. 8·92 crores. Despatches of metals and ores declined from 1,183,000 to 829,000 tons in quantity and from Rs. 7·94 to 5·47 crores in value. Exports of lac fell from 547,000 cwts. worth Rs. 3·14 crores to 464,000 cwts. valued at Rs. 1·84 crores. Shipments of coffee fell off from 293,000 cwts. to 156,000 cwts.

Cotton piecegoods showed an increase of about 7 million yards in quantity but the value declined by Rs. 8 lakhs. Under food grains, although the total shipments remained unchanged in quantity at 2,614,000 tons the declared value fell from Rs. 29·88 to 20·37 crores. Shipments of rice advanced slightly from 2,279,000 tons in 1930-31 to 2,372,000 tons in 1931-32. Shipments of groundnuts increased from 601,000 tons valued at Rs. 9·67 crores to 672,000 tons valued at Rs. 10·14 crores.

Imports.—On the import side the most prominent feature of the year's trade was a decline of Rs. 6·11 crores under cotton manufactures. Cotton piecegoods alone were responsible for a fall of Rs. 5·38 crores in value and of 114 million yards in quantity, the actual receipts amounting to 776 million yards worth Rs. 14·67 crores. Imports of sugar fell in quantity from 1,003,000 to 556,000 tons and in value from Rs. 10·96 to 6·17 crores. Imports of iron and steel declined from 614,200 tons valued at Rs. 10·89 crores to 371,000 tons valued at Rs. 6·32 crores. Under machinery and mill-work there was a net decline of Rs. 3·43 crores. Imports of hardware (excluding cutlery and electroplated ware) declined further from Rs. 3·60 to 2·60 crores. Arrivals of mineral oils also fell from 242 million gallons valued at Rs. 10·48 crores to 217 million gallons valued at Rs. 9·04 crores. The imports of kerosene oil declined from 98·9 million gallons to 85·7 million gallons and of fuel oils from 106·3 million gallons to 100·8 million gallons. Imports of provisions were valued at Rs. 3·41 crores, a decline of Rs. 1·47 crores. Imports of paper and pasteboard recorded a decline of 103,000 cwts. in quantity and of Rs. 37 lakhs in value. Imports of wheat came down from 232,000 tons worth Rs. 2·14 crores in 1930-31 to 111,000 tons worth Rs. 73 lakhs in 1931-32. Imports of twist and yarn increased in quantity from 29 million lbs. to 32 million lbs. but the value receded from Rs. 3·08 to 2·99 crores. Imports of raw cotton improved from 58,000 tons valued at Rs. 6·39 crores to 79,000 tons valued at Rs. 7·03 crores.

Balance of trade.—The visible balance of trade in merchandise and treasure for the year 1931-32 was Rs. 91 crores in favour of India as compared with Rs. 38 crores for 1930-31.

14. Financial results of working.—In the year 1931-32, as in the preceding year, net receipts of Railways were insufficient to meet their interest charges. The deficit was 9·20 crores, or about 4 crores more than in the previous year. The balance of 4·95 crores in the Reserve Fund was totally wiped out and a sum of 4¼ crores had to be borrowed from the Depreciation Fund in order to meet this deficit.

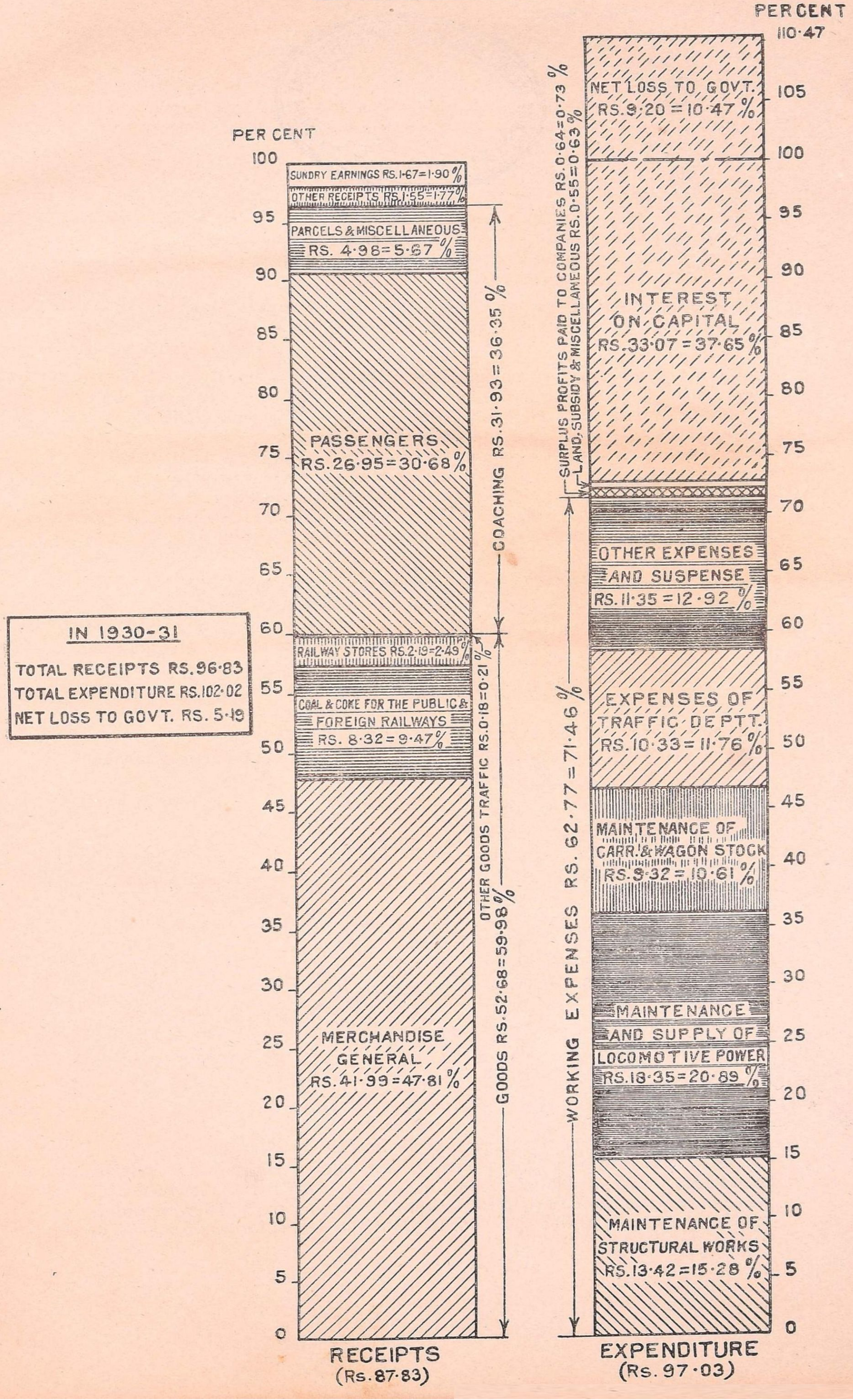
The statement below compares the results of working of the two years 1930-31 and 1931-32—

(Figures in lakhs.)

	1930-31.	1931-32.
	Rs.	Rs.
Gross traffic receipts	95,10	**86,63**
Surplus profits from subsidised companies	20	**15**
Interest on Depreciation and Reserve Funds	1,32	**93**
Other miscellaneous receipts	21	**12**
Total	96,83	**87,83**
Ordinary working expenses, excluding depreciation	56,05	**49,22**
Adjustments with Depreciation Fund owing to correction of past erroneous adjustments	−1,66	**+9**
	54,39	**49,31**

RECEIPTS AND EXPENDITURE OF STATE OWNED RAILWAYS IN INDIA 1931-32.

FIGURES IN CRORES.



(Figures in lakhs.)

	1930-31.	1931-32.
	Rs.	Rs.
Depreciation	13,06	**13,46**
Surplus profits paid to Companies	1,16	**64**
Land and subsidy to Companies	6	**9**
Interest	32,72	**33,07**
Miscellaneous railway expenditure	63	**46**
Total	1,02,02	**97,03**
Net deficit	5,19	**9,20**

Gross receipts were lower by $8\frac{1}{2}$ crores owing to the unexampled world wide economic depression aggravated in India by the special difficulties of the political situation.

Operating expenses showed the very large decrease of over $6\frac{3}{4}$ crores, of which about 60 lakhs may be taken to be due to the cut in pay. The amount to be provided for depreciation increased by 40 lakhs as a natural result of the growth in our assets. During 1930-31, however, revenue had a windfall in the shape of a credit to the Depreciation Fund owing to the correction of erroneous adjustments extending for a long period and though the decrease in gross receipts was less than 2 crores more than the actual reduction in working expenses the net receipts during 1931-32 amounted to nearly 4 crores less. This amounted to 24 crores as compared with $27\frac{2}{3}$ crores in the previous year.

Other railway receipts were about half a crore lower than in the previous year. Interest on Depreciation and Reserve Funds, which is the most important item, was naturally lower owing to the exhaustion of the Reserve Fund. This decrease was, however, made up by a corresponding decrease under other railway expenditure exclusive of interest owing to the large decrease in the surplus profits payable to Companies as a result of the decrease in their net earnings.

15. *Earnings.*—The table below compares the earnings of the more important individual railways in the two years 1930-31 and 1931-32 :—

(Figures in lakhs.)

	1930-31.	1931-32.	Decrease.
	Rs.	Rs.	Rs.
North Western	16,45	**14,65**	−1,80
Eastern Bengal	5,86	**5,05**	− 81
East Indian	18,24	**17,36**	− 88
Great Indian Peninsula	13,33	**11,92**	−1,41
Burma	4,28	**3,74**	− 54
Bengal Nagpur	8,17	**7,24**	− 93
Bombay, Baroda and Central India	10,90	**10,30**	− 60
Madras and Southern Mahratta	7,98	**7,15**	− 83
South Indian	5,80	**5,30**	− 50
Other railways	4,08	**3,92**	− 16
Total	95,09	**86,63**	−8,46

Of the total fall of 8·46 crores in earnings it may be said that very roughly $2\frac{1}{2}$ crores (about 8 per cent.) was in passenger earnings and $5\frac{1}{2}$ crores (about 9 per cent.) in goods earnings and about 44 lakhs is due to the change in procedure of accounting the earnings of the Mysore State Railway as those of worked lines in the accounts for 1931-32. The fall in passenger earnings

was due to the decreased spending power of the people combined with the general unrest in the country. Increasing road motor competition had, of course, a share in reducing the earnings. The Agent, Burma Railways, has estimated that this is responsible for a loss of over 10 lakhs in his earnings. As regards goods earnings, the economic depression with the abnormally low level of prices is a general reason. The failure of the cotton crop reduced the earnings of the Great Indian Peninsula Railway over a crore and had a similar, though much smaller effect, on the Bombay, Baroda and Central India and the Madras and Southern Mahratta Railways. The slump in jute reduced the earnings of the Eastern Bengal Railway by 32 lakhs and of the Assam Bengal Railway by a small amount. The considerable fall in manganese traffic hit the Bengal Nagpur Railway hard. In manganese and iron ore traffic they lost 17 lakhs. Another great disappointment to many railways was the oil seeds traffic, the chief sufferers being the Madras and Southern Mahratta Railway (16 lakhs), the Bombay, Baroda and Central India Railway (7 lakhs) and the South Indian Railway (6 lakhs). The decrease in the export of cotton and wheat and in the import of piecegoods, sugar and metals and road motor competition considerably affected the earnings on the North Western Railway. The decline in earnings on the East Indian Railway occurred in all kinds of passenger traffic except that of ordinary return tickets owing to poor economic conditions that prevailed during the year. The decline on this railway, as on other railways, also occurred in goods traffic, partly owing to wheat from the Punjab having moved by rail and sea *viâ* Karachi instead of by the all rail route and partly owing to reduction in traffic of sugar, oil seeds and other commodities.

16. *Ordinary working expenses, excluding contribution to the depreciation fund.*—After taking into consideration the change in procedure of accounting the working expenses of the Mysore State Railway as those of worked lines in the accounts for 1931-32 were 6·83 crores less than in 1930-31, if the arrear adjustments of 166 lakhs in the previous year already referred to and an adjustment of 9 lakhs made in 1931-32 are neglected. The following table shows the variations on the individual railways :—

(Figures in lakhs).

	1930-31.	1931-32.	Decrease.
	Rs.	Rs.	Rs.
North Western	10,79	**9,12**	-1,67
Eastern Bengal	3,74	**3,29**	- 45
East Indian	9,95	**9,02**	- 93
Great Indian Peninsula	8,57	**7,12**	-1,45
Burma	2,61	**2,34**	- 27
Bengal Nagpur	5,35	**4,84**	- 51
Bombay, Baroda and Central India	6,14	**5,47**	- 67
Madras and Southern Mahratta	3,88	**3,33**	- 55
South Indian	2,87	**2,63**	- 24
Other railways	2,15	**2,06**	- 9
Total	56,05	**49,22**	-6,83

The largest saving was on the North Western Railway where there was a reduction of Rs. 167 lakhs or 15½ per cent. of its expenditure in 1930-31 and the next was on the Great Indian Peninsula Railway which reduced its expenditure by about 17 per cent. as compared with previous year. All railways have done their best to effect reduction in ordinary working expenses.

17. In the following table the working expenses of 1930-31 and 1931-32 are compared by the major heads into which railway expenditure is divided.

(Figures in thousands).

	1930-31.	1931-32.	Difference.
	Rs.	Rs.	Rs.
1. General Administration . .	14,88,96	**14,43,29**	- 45,67
2. Repairs and Maintenance and Operation	42,12,99	**37,45,46**	- 4,67,53
3. Appropriation to Depreciation Fund	13,06,53	**13,46,34**	+ 39,81
Total .	70,08,48	**65,35,09**	- 4,73,39
Deduct—Worked lines and suspense	2,63,01	**2,57,71**	- 5,30
Total Working Expenses .	67,45,47	**62,77,38**	- 4,68,09

18. *Administration.*—The expenditure under this head fell from 14·89 crores to 14·43 crores. A part of this decrease was of course due to the emergency cut in pay, but this must be taken as having been counterbalanced by the abnormally heavy expenditure on gratuities that the Railways had to incur as a result of the large number of staff discharged as a measure of retrenchment. That there has been a decrease of nearly half a crore in spite of the normal and inevitable increase in expenditure under this head as a result of annual increments and expenditure on staff required for new lines is remarkable.

19. *Repairs and maintenance and operation.*—The expenditure in 1931-32 was 37·45 crores or 468 lakhs below the real expenditure of 1930-31. Part of this saving must be taken as expenditure postponed for the time being, but there is no doubt that a considerable portion can be taken as a permanent saving. It is one of the advantages of a period of acute depression like the present that it impels every authority responsible for expenditure to examine each item of expenditure very carefully in order to see whether he could do without it or carry out the work at cheaper cost. Every railway, for instance, carefully considered the scale of consumable stores, tools and plant, with a view to reduction. Cheaper substitutes were experimented with. Scrap material was reclaimed and reconditioned and brought into use. The strength of the permanent way gangs and level crossing gatemen was carefully examined and reduced wherever possible. Repairs to staff quarters, buildings and bridges were drastically curtailed. Only essential minor works were undertaken. Rolling stock was laid up when not required. The period between overhauls was increased. Overtime was reduced in workshops and sheds. Short time was introduced in many workshops. Some railways closed certain workshops altogether. Measures were taken to economise in the use of coal. Staff to be charged to the head "Operation" was reduced to correspond, as far as possible, to the fall in traffic. Large numbers were discharged or given inducements to retire voluntarily. Some were placed on compulsory leave for a time or reduced to a lower grade. Other economy measures adopted included the closing down of a number of stations or converting them into flag stations. Finally all railways effected, wherever possible, reduction in train mileage, both goods and passengers as well as shunting.

The increase of nearly 40 lakhs under depreciation fund follows the addition to the value of the assets which was made during the previous year, while the share of expenses recovered from worked lines showed a decrease of about 5 lakhs, but if the change in procedure of accounting the transactions of the Mysore Railway is taken into account, the real decrease is of about 29 lakhs and is due to the fall in gross traffic receipts of the branch lines.

20. The contribution to General Revenues amounted to Rs. 536 lakhs or 38 lakhs less than in 1930-31. The payment of the contribution has been held in abeyance until the return of prosperous years. The statement below shows how this is arrived at:—

(Based on actuals of penultimate year 1929-30.)

(Figures in thousands of rupees.)

	Rs.	Rs.
1. 1 per cent. on capital of 7,23,54,28 at charge—commercial lines—to end of 1929-30	...	7,23,54
2. (*i*) Receipts (1929-30)—		
Gross traffic receipts—commercial lines . . .	1,01,11,47	
Subsidized companies—share of surplus profits .	58,71	
Interest on depreciation and reserve fund balances and dividends on investments in branch lines and miscellaneous receipts	1,46,04	
Total Receipts .		1,03,16,22
(*ii*) Charges (1929-30)—		
Working expenses—commercial lines . . .	66,09,10	
Indian States and railway companies' share of surplus profits	1,51,98	
Land and subsidy	4,39	
Interest—		
On capital at charge—commercial lines . .	27,69,03	
On capital contributed by Indian States and companies	1,36,94	
Miscellaneous railway expenditure . . .	53,62	
Contribution at 1 per cent. on capital at charge—commercial lines	7,23,54	
Total Charges .		1,04,48,60
(*iii*) Deficit		1,32,38
(*iv*) Contribution of 1/5th of surplus		...
3. Total contribution from railway revenues 1 *plus* 2 (*iv*) .		7,23,54
Deduct—Loss on strategic lines—		
(*i*) Interest on capital of 33,10,29	1,40,09	
(*ii*) Loss in working	47,43	
		1,87,52
4. Net payment due from railway to general revenues in 1931-32		5,36,02

21. The return during 1931-32 on the total capital at charge of both commercial and strategic lines is 3·16 per cent. or about half a per cent. less than in 1930-31. This compares with the returns during the last five years as follows:—

1926-27	5·05
1927-28	5·41
1928-29	5·22
1929-30	4·65
1930-31	3·70
1931-32	3·16

22. The amount appropriated to the depreciation fund by debit to the working expenses of State-owned railways and the amount drawn from the fund to meet the expenditure incurred on replacement and renewals actually

carried out on those railways during 1930-31 and 1931-32 are given in the statement below :—

(Figures in thousands of rupees.)

Railways.	Credits to Depreciation Fund by debit to Revenue on account of depreciation in 1930-31.	Amount spent on Replacements and Renewals and charged to Depreciation Fund in 1930-31.	Credits to Depreciation Fund by debit to Revenue on account of depreciation in 1931-32.	Amount spent on Replacements and Renewals and charged to Depreciation Fund in 1931-32.
State Lines managed by State.				
North Western	2,68,35	1,80,21	2,76,44	1,59,48
Eastern Bengal	91,70	76,50	95,95	82,78
East Indian	2,29,25	2,18,13	2,35,19	1,37,42
Great Indian Peninsula	1,89,21	1,17,56	1,94,38	99,57
Burma	51,72	39,38	52,64	24,64
Aden	...	...	...	—1,11
State Lines managed by Companies.				
Bengal Nagpur	1,31,75	1,01,27	1,34,03	1,28,33
Bombay, Baroda and Central India . .	1,33,50	97,34	1,37,95	70,27
Madras and Southern Mahratta . .	87,55	61,43	89,67	63,64
South Indian	69,62	55,82	75,27	42,75
Other railways	53,88	26,25	54,82	27,72
Adjustments :— 1. Net result of adjustment of credits on account of released materials and expenditure on non-wasting assets of company-worked railways under Repairs and Maintenance.	...	2,24,90	...	—9,01
2. Write-back of Renewal and Replacement expenditure of the company's sections of the Bengal and North-Western and Rohilkund and Kumaon Railways for the years 1924-25 to 1929-30.	...	—59,20	...	...
TOTAL .	13,06,53	11,39,59	13,46,34	8,26,48

23. An analysis of the financial results of the working of the railways owned by the State is given in the following statement, for the last three years, by each railway :—

(Figures in thousands of rupees.)

Railways.	Year.	(*d*) Capital at charge.	*Deduct* amount of capital contributed by Companies and Indian States.	Net Government Capital at charge.	Receipts.	Working Expenses including Depreciation.	Net Receipts.	Percentage of Net Receipts on Capital at charge.	Charge against net Revenue Receipts.		Gain.	Loss.
									Payment on account of share of Surplus Profits.	Interest Annuity and Sinking Fund charges.		
1	2	3	4	5	6	7	8	9	10	11	12	13
State Lines managed by State.												
North Western	1929-30	1,46,46,71	...	1,46,46,71	15,97,70	12,71,84	3,25,86	2·2	...	5,79,44	...	2,53,58
	1930-31	1,47,84,94	...	1,47,84,94	16,45,45	13,47,21	2,98,24	2·0	...	6,32,13	...	3,33,89
	1931-32	**1,48,36,74**	...	**1,48,36,74**	**14,65,19**	**11,88,59**	**2,76,60**	**1·9**	...	**6,33,68**	...	**3,57,08**
Eastern Bengal	1929-30	49,84,72	...	49,84,72	6,73,07	4,70,70	2,02,37	4·0	...	1,86,84	15,53	...
	1930-31	50,82,12	...	50,82,12	5,86,00	4,65,73	1,20,27	2·4	...	1,99,86	...	79,59
	1931-32	**51,34,71**	...	**51,34,71**	**5,05,07**	**4,24,66**	**80,41**	**1·6**	...	**2,03,33**	...	**1,22,92**
East Indian	1929-30	1,43,46,77	59,96	1,42,86,81	19,85,18	12,42,14	7,43,04	5·2	...	5,81,73	1,61,31	...
	1930-31	1,45,62,28	59,96	1,45,02,32	18,24,30	12,24,40	5,99,90	4·1	...	6,17,61	...	17,71
	1931-32	**1,47,23,75**	**1,12,14**	**1,46,11,61**	**17,35,65**	**11,37,18**	**5,98,47**	**4·1**	...	**6,22,33**	...	**23,86**
Great Indian Peninsula	1929-30	1,15,48,13	...	1,15,48,13	14,58,35	10,19,72	4,38,63	3·8	...	4,30,95	7,68	...
	1930-31	1,17,25,56	...	1,17,25,56	13,33,36	10,45,78	2,87,58	2·5	...	4 59,81	...	1,72,23
	1931-32	**1,17,87,89**	...	**1,17,87,89**	**11,92,31**	**9,06,71**	**2,85,60**	**2·4**	...	**4,63,35**	...	**1,77,75**
Burma	1929-30	34,75,53	...	34,75,53	4,87,13	3,05,36	1,81,77	5·2	§18,48	1,58,80	4,49	...
	1930-31	35,31,28	...	35,31,28	4,27,81	3,12,60	1,15,21	3·3	...	1,58,96	...	43,75
	1931-32	**35,80,36**	...	**35,80,36**	**3,73,84**	**2,86,46**	**87,38**	**2·4**	...	**1,60,96**	...	**73,58**
State Lines managed by Companies.												
Bengal Nagpur	1929-30	74,16,49	10,53,13	63,63,36	9,31,44	6,92,25	2,39,19	3·2	...	3,22,13	...	82,94
	1930-31	75,75,58	10,53,13	65,22,45	8,17,01	6,67,25	1,49,76	2·0	...	3,48,78	...	1,99,02
	1931-32	**76,77,25**	**10,53,13**	**66,24,12**	**7,23,67**	**6,17,45**	**1,06,22**	**1·4**	...	**3,54,63**	...	**2,48,41**

Bombay, Baroda and Central India	1929-30	71,63,85	2,49,00†	69,14,85	11,51,68	7,53,94	3,97,74	5·6	17,91‡	2,69,04	1,10,79	...
	1930-31	72,83,64	2,49,00†	70,34,64	10,89,60	7,47,22	3,42,38	4·7	15.00‡	2,84,30	43,08	...
	1931-32	**73,26,81**	**2,50,86†**	**70,75,95**	**10,29,70**	**6,85,50**	**3,44,20‡**	**4·7**	**11,34‡**	**2,87,79**	**45,07**	...
Madras and Southern Mahratta	1929-30	56,47,17	10,07,08	46,40,09	8,97,54	4,84,92	4,12,62	7·3	96,94‡	2,26,97	88,71	...
	1930-31	53,81,44	10,07,08	43,74,36	7,98,20	4,75,88	3.22,32	6·0	79,57‡	2,41,44	1,31	...
	1931-32	**52,85,62**	**8,43,25**	**44,42,37**	**7,14,71**	**4,22,60**	**2,92,11**	**5·5**	**40,06**	**2,38,33**	**13,72**	...
South Indian	1929-30	38,55,12	4,95,81‖	33,59,31	6,32,74	3,50,01	2,82,73	7·3	10,34‡	1.59,23	1,13,16	..
	1930-31	43,76 03	4,95,81‖	38,80,22	5,79.97	3.56.94	2,23,03	5·1	14,72‡	1,77,25	31,06	...
	1931-32	**44,62,77**	**4,95,81‖**	**39,66,96**	**5,30,60**	**3,37,83**	**1,92,77**	**4·3**	**7,94**	**1,83,50**	**1,33**	...
Other railways	1929-30	39,13,61	4,54,60	34,59,01	4,55,46	2,67,40	1,88,06	4 8	8,31	1,30,93	48,82	...
	1930-31	40,14,88	4,54,60	35,60,28	4,07,96	2,68,16	1.39,80	3·5	7,01	1,51,41	...	18,62
	1931-32	**41,48,13**	**5,36,35**	**36,11,78**	**3,92,01**	**2,61,29**	**1,30,72**	**3·2**	**4,85**	**1,58,74**	...	**32,87**
Suspense	1929-30	...	...	...	...	...	...	...	...	...	...	...
	1930-31	...	...	...	...	...	...	...	..	...	...	...
	1931-32	...	...	...	...	**10**	**—10**	...	...	...	...	**10**
Adjustments :—												
1. Net result of adjustment of credits on account of released materials and expenditure on non-wasting assets of company-managed railways under Repairs and Maintenance.	1929-30	...	...	...	...	—40,35	40,35	...	..	...	40,35	...
	1930-31	...	...	..	...	**—2,24,90**	**2,24,90**	...	...	...	**2,24,90**	...
	1931-32		...	...	..	**9,01**	**—9,01**	...	...		...	**9,01**
2. Write-back of Renewal and Replacement Expenditure of the Company's Sections of the Bengal and North Western and Rohilkund and Kumaon Railways for the years 1924-25 to 1929-30	1930-31	...	...	...	...	59,20	—59,20	...	...	...	...	59,20
Interest on Depreciation and Reserve Fund balances	1929-30	...	...	...	1,27,66	...	1,27,66	...	...	...	1,27,66	...
	1930-31	...	...	...	1,32,21	...	1,32,21	...	...	...	1,32,21	...
	1931-32	...	...	...	**93,17**	...	**93,17**	...	...	...	**93,17**	...
Net Miscellaneous Receipts and Charges not attributable to any one Railway.	1929-30	...	...	...	...	...	...	...	...	...	21,66	...
	1930-31	...	...	...	...	...	...	...	...	...	...	27,33*
	1931-32	...	..	...	...	...	...	...	...	...	...	**27,77***
Total (Central)	1929-30	7,69,98,10	33,19,58	7,36,78,52	1,03,97.95	68,17,93	35,80,02	4·6	1,51,98	30,46,06	4,03,64	...
	1930-31	7,83,17,75	33,19,58	7,49.98,17	96,41,87	67,45,47	28,96,40	3·7	1,16,30	32,71,55	...	5,18,78
	1931-32	**7,89,64,03**	**32,91,54**	**7,56,72,49**	**87,55,92**	**62,77,38**	**24,78,54**	**3·1**	**64,19**	**33,06,64**	...	**9,20,06**

For (*d*), §, ‖, †, ‡ and * please see foot notes on page 16.

(Figures in thousands of rupees.)

Railways.	Year.	(*d*) Capital at charge.	*Deduct* amount of capital contributed by Companies and Indian States.	Net Government Capital at charge.	Receipts.	Working Expenses including Depreciation.	Net Receipts.	Percentage of Net Receipts on Capital at charge.	CHARGE AGAINST NET REVENUE RECEIPTS. Payment on account of share of Surplus Profits.	CHARGE AGAINST NET REVENUE RECEIPTS. Interest Annuity and Sinking Fund charges.	Gain.	Loss.
1	2	3	4	5	6	7	8	9	10	11	12	13
State Lines managed by Companies—concld.												
Provincial Railways	1929-30	14,61	...	14,61	(*a*)2,88	...	2,88	...	...	56	2,32	...
	1930-31	14,61	...	14,61	(*a*)2,21	...	2,21	...	...	57	1,64	...
	1931-32	**14,61**	...	**14,61**	(*a*)**1,61**	...	**1,61**	...	...	**58**	**1,03**	...
Grand Total (Central and Provincial)	1929-30	7,70,12,71	33,19,58	7,36,93,13	1,04,00,83	68,17,93	35,82,90	4·6	1,51,98	30,46,62	4,05,96	...
	1930-31	7,83,32,36	33,19,58	7,50,12,78	96,44,08	67,45,47	28,98,61	3·7	1,16,30	32,72,12	...	5,17,14
	1931-32	**7,89,78,64**	**32,91,54**	**7,56,87,10**	**87,57,53**	**62,77,38**	**24,80,15**	**3·1**	**64,19**	**33,07,22**	...	**9,19,03**
North Western (Commercial)	1929-30	1,13,07,99	...	1,13,07,99	14,39,21	10,63,78	3,75,43	3·3	...	4,39,35	...	63,92
	1930-31	1,13,67,34	...	1,13,67,34	14,97,95	11,29,52	3,68,43	3·2	...	4,85,22	...	1,16,79
	1931-32	**1,13,83,69**	...	**1,13,83,69**	**13,33,60**	**10,07,20**	**3,26,40**	**2·9**	...	**4,84,80**	...	**1,58,40**
Non-Commercial (Strategic) (North Western and Aden Railways).	1929-30	33,38,72	...	33,38,72	(*b*)1,58,81	(*b*)2,08,82	(*b*)—50,01	—1·5	...	1,40,09	...	1,90,10
	1930-31	34,17,60	...	34,17,60	1,47,50	(*e*)2,18,58	(*e*)—71,08	—2·1	...	1,46,91	...	2,17,99
	1931-32	**34,53,05**	...	**34,53,05**	**1,31,59**	(*c*)**1,81,47**	(*c*)—**49,88**	—**1·4**	...	(*c*)**1,48,86**	...	**1,98,74**

† Includes Capital provided by the Palanpur Durbar.

‡ Includes payments to Durbars—

	1929-30.	1930-31.	1931-32.
Jaipur Durbar	7,79	6,99	**6,52**
Limbdi „	7	12	...
Palanpur „	21	17	**17**
Mysore „	22,85	18,18	(*f*)
Travancore „	43	1,00	...
* Includes recoveries from Travancore Durbar	19	...	**97**

(*a*) Represent figures on account of subsidized Companies, etc.

(*d*) Figures of Capital at charge include sterling liabilities involved in the purchase of Railways converted at 1*s.* 6*d.* to the rupee.

(*f*) Payment to Mysore Durbar are no longer included in the surplus profit of Madras and Southern Mahratta Railway.

§ Represents payment of surplus profits of the Burma Railways for the year 1928-29 which could not be paid in that year as final settlement was not arrived at between the Government of India and the Burma Railways.

‖ Includes capital expenditure on Tinnevelly Quillon (Indian State Section).

(*b*) Includes Aden Railway :—

Column 6	33
„ 7	76
„ 8	—43

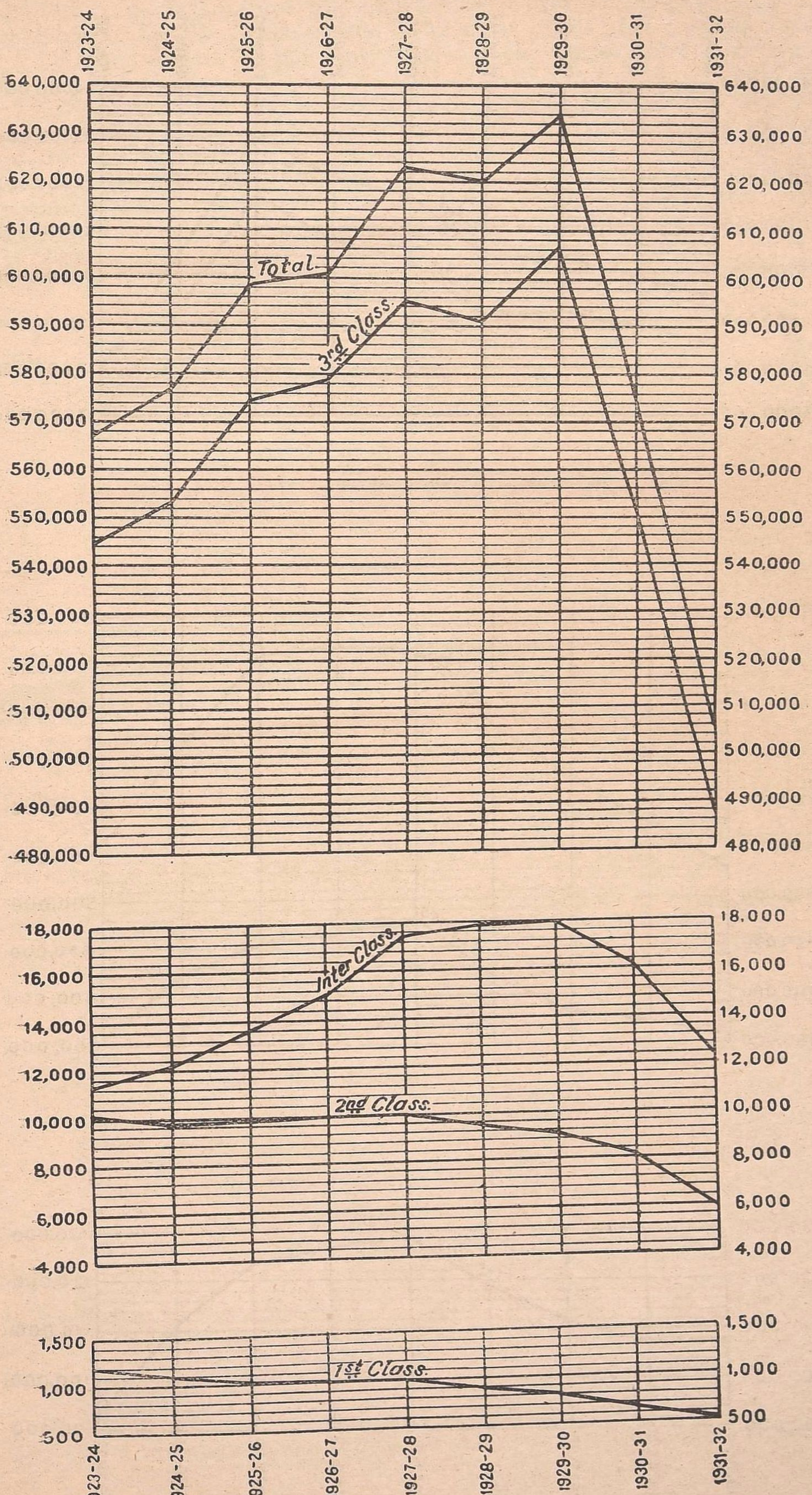
(*e*) Includes Aden Railway :—

Column 7	89
„ 8	—89

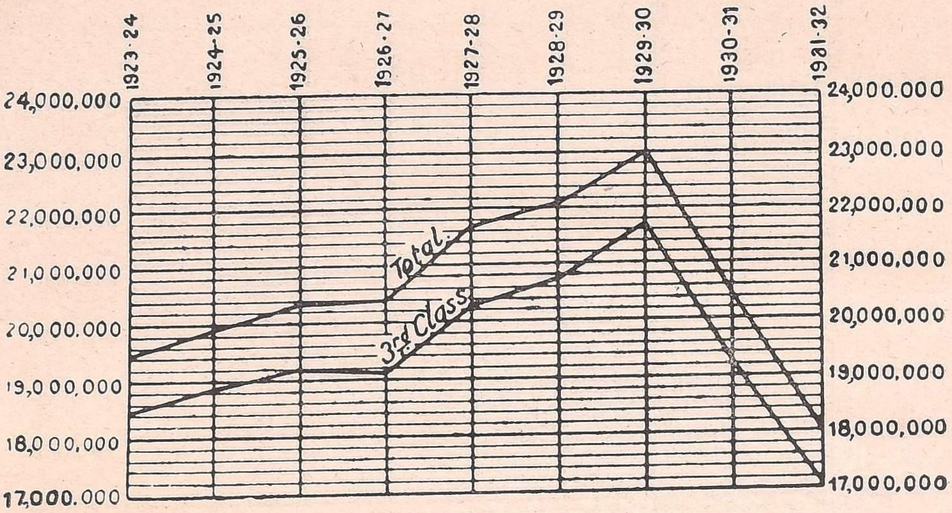
(*c*) Includes Aden Railway :—

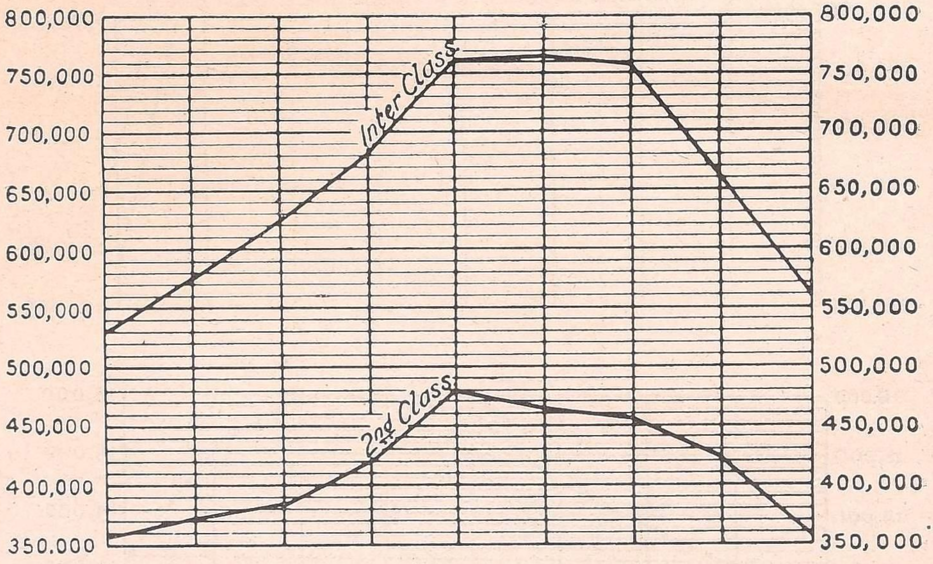
Column 7	8
„ 8	—8
„ 11	—2

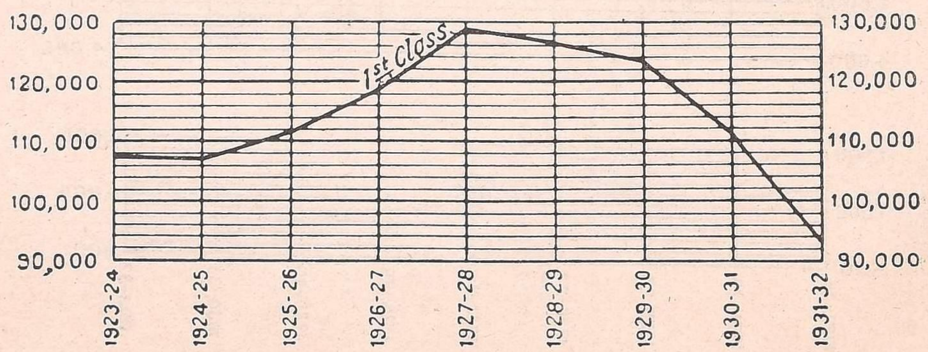
NUMBER OF PASSENGERS CARRIED ON INDIAN RAILWAYS
(IN THOUSANDS.)



PASSENGER MILES
INDIAN RAILWAYS
(IN THOUSANDS)







24. Analysis of earnings.—The total earnings of all Indian railways, including those with which the Government of India is not directly concerned, amounted to Rs. 97·21 crores, of which Rs. 58·73 crores or 60·4 per cent. were from goods traffic, Rs. 31·35 crores or 32·3 per cent. from passenger traffic and Rs. 7·13 crores or 7·3 per cent. from parcels, luggage and miscellaneous items.

25. *Passenger earnings.*—Passenger earnings dropped from Rs. 34·29 crores during 1930-31 to 31·35 crores during the year under review, showing a drop of 8·58 per cent. The following table shows the numbers of and earnings from passengers separately for each class for the 4 years previous to the war and for the 6 latest years. Graphs are also inserted showing the numbers of passengers carried and of passenger miles by classes from the beginning of 1923-24:—

Year.	Number of passengers carried (in thousands).					Earnings from passengers (in thousands of rupees).				
	1st Class.	2nd Class.	Inter. Class.	3rd Class.	Season and Vendor's tickets.	1st Class.	2nd Class	Inter-Class.	3rd Class.	Season and Vendor's tickets.
1910	685	2,784	10,702	315,839	24,341	58,82	77,23	94,99	14.65,16	15,85
1911	703	2,947	11,409	331,055	25,687	66,38	83,83	1,08,88	15,73,15	16,85
1912	700	3,030	10,508	356,789	26,810	62,90	83,31	91,37	17.01,35	17,55
1913-14	715	3,253	12,000	390,412	30,114	68,94	88,70	1,03,48	18,37,03	19,36
1926-27	1,012	10,006	14,945	578,409	*	1,17,78	1.88,31	1,61,79	33,44,63	*
1927-28	980	9,963	17,351	594,821	*	1,13,71	1,95,67	1,69,33	34,39,39	*
1928-29	912	9,585	17,870	591,679	*	1,12,25	1,91,89	1,66,43	33,53,56	*
1929-30	804	9,125	17,900	606,468	*	1,04,45	1,83,56	1,58,96	34,11,36	*
1930-31	670	8,089	16,189	550,879	*	94,06	1,70,20	1,41,34	30,24,15	*
1931-32	**508**	**5,937**	**12,354**	**487,037**	*	**83,34**	**1,53,71**	**1,22,98**	**27,75,41**	*

* The number of season and vendor's tickets and their earnings included under the respective classes; the former at the rate of 50 single journeys per month.

NOTE.—In pre-war reports the sum of the numbers of passengers carried on each separate railway was shown as the total number of passengers carried on all railways. Passengers travelling over two or more railways were thus counted as two or more passengers. The actual number of passengers carried on all railways is in fact the same as the number of passengers originating and this figure has been adopted for 'number of passengers carried' in the reports from 1923-24 onwards. As the number of passengers originating is not available prior to 1923-24 the figures of pre-war years have been modified.

26. During 1931-32, the number of passengers carried on Class I Railways was 68 millions less than in 1930-31 and passenger earnings decreased by about 3 crores. The following statement shows how these decreases were distributed over the various railways:—

Name of Railway.	Variations in the No. of passengers carried as compared with 1930-31.	Variations in Earnings as compared with 1930-31.
		Rs.
Assam Bengal	– 2,167,800	– 14,51,000
Bengal and North-Western	– 4,768,200	– 20,58,000
Bengal Nagpur	– 3,862,300	– 25,51,000
Bombay, Baroda and Central India	– 4,976,400	– 18,17,000
Burma	– 6,014,700	– 20,84,000
Eastern Bengal	– 6,406,200	– 29,66,000
East Indian	– 5,389,500	– 26,93,000
Great Indian Peninsula	– 5,049,500	– 10,77,000
Jodhpur	– 619,200	– 4,25,000
Madras and Southern Mahratta	– 4,233,000	– 14.13,000
His Exalted Highness the Nizam's State	– 1,549,200	– 4,07,000
North Western	– 15,309,400	– 65,41,000
Rohilkund and Kumaon	– 577,100	– 2,54,000
South Indian	– 7,303,800	– 23,18,000
Total	– 68,226,300	– 2,80,55,000

27. *Goods earnings.*—There was a decrease in earnings from goods traffic on all railways amounting to Rs. 5·69 crores, chiefly under cotton, raw

and cotton manufactured, fuel (coal) for the public and foreign railways, wheat, sugar, oilseeds, jute raw, and metallic ores, and railway materials and stores on revenue account.

The statement given below shows the tonnage of, and earnings from, the principal commodities on Class I Railways during the last two years. The commodities which showed an appreciable increase are gur, jagree and molasses, gram and pulse and other grains.

Commodity.	1930-31.		1931-32.		Decrease — Increase + in Earnings (lakhs).
	No. of tons originating (in millions).	Rs. (in crores).	No. of tons originating (in millions).	Rs. (in crores).	
Decreases.					
Cotton raw and manufactured.	1·68	6·31	1·30	4·76	—155
Fuel for public and Foreign Railways.	20·03	9·56	18·42	8·83	—73
Materials and stores on Revenue account.	14·29	2·88	11·42	2·31	—57
Wheat	1·96	2·69	1·73	2·16	—53
Sugar	0·77	2·03	0·67	1·51	—52
Oil-seeds	2·76	4·01	2·37	3·52	—49
Jute, Raw . . .	0·99	1·36	0·70	0·99	—37
Metallic ores . . .	2·56	0·93	2·09	0·58	—35
Iron and steel wrought . .	1·12	2·07	1·10	1·81	—26
Marble and stone . . .	3·29	0·89	2·29	0·70	—19
Railway materials . .	6·35	0·77	5·80	0·72	—5
Wood, unwrought . . .	1·20	0·75	1·11	0·70	—5
Military traffic . . .	0·31	0·32	0·27	0·27	—5
Provisions	1·15	2·86	1·13	2·83	—3
Tobacco	0·29	0·71	0·27	0·68	—3
Manures . . .	0·14	0·10	0·11	0·09	—1
Live stock	0·18	0·53	0·16	0·52	—1
Other commodities . .	8·39	9·75	7·50	9·24	—51
Increases.					
Gur, Jagree, Molasses . .	0·75	0·98	0·86	1·27	+29
Gram and pulses and other grains.	2·65	3·42	2·66	3·58	+16
Kerosene	0·85	1·50	0·92	1·62	+12
Salt	1·42	1·85	1·43	1·93	+8
Fruits and vegetables . .	1·27	1·03	1·47	1·11	+8
Rice	4·17	3·67	4·21	3·71	+4
Petrol	0·28	0·93	0·27	0·93	...
Fodder	0·81	0·50	0·81	0·50	...
TOTAL .	79·66	62·40	71·07	56·87	—553

28. Alterations in rates and fares.—In order to counteract as far as possible the fall in their traffic earnings, consequent on the general trade depression, the principal railways enhanced their rates and fares.

Coaching traffic.—In the case of traffic carried by passenger train enhancements were made :—

(*i*) in the fares for all classes on several railways, and for third class on some others,

(*ii*) in the rates for luggage and parcels : the enhanced rates being about 15 per cent. more than the rates previously in force.

Certain railways also withdrew some of the concessions they were allowing, *e.g.*, week-end, holiday and other return tickets.

Goods traffic.—In the case of traffic carried by goods train freight rates for coal were enhanced on several of the principal railways by the imposition of a surcharge of 15 per cent. In addition, Railways, after an examination of their tariffs, increased their rates for various other commodities which were considered able to bear enhanced rates, according to the local conditions obtaining on each of their respective systems.

29. Stores balances.—The table below compares the figures of stores balances since 1921-22 :—

(In thousands.)

Railways.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	**1931-32.**
	Rs.	Rs.	Rs.	Rs.	Rs	Rs.	Rs.	Rs.	Rs.	Rs.	**Rs.**
Assam Bengal	24,81	31,48	18,38	12,30	9,49	12,59	13,01	14,91	18,04	22,05	**20,70**
Bengal Nagpur	1,40,26	1,61,88	1,48,09	1,49,44	1,27,64	1,17,17	1,07,87	1,32,69	1,36,28	1,21,17	**1,06,76**
Bombay, Baroda and Central India.	2,76,83	2,72,43	2,33,25	1,77,39	1,62,48	1,46,28	1,67,17	1,62,35	1,60,82	1,64,54	**1,46,34**
Burma	66,62	84,85	98,71	84,62	75,00	44,82	59,41	61,25	55,25	52,55	**50,83**
East Indian (including Oudh and Rohilkhand).	3,92,50	4,39,19	4,10,66	3,14,19	2,81,46	2,48,17	2,98,92	3,14,89	3,03,84	2,48,39	**2,27,47**
Eastern Bengal	2,51,63	1,76,20	1,57,85	1,21,99	1,12,27	84,07	84,39	79,53	77,21	76,33	**68,70**
Great Indian Peninsula.	4,66,49	3,88,35	3,97,77	2,89,49	2,38,67	2,23,13	2,53,49	2,41,88	2,62,01	2,51,73	**2,18,32**
Madras and Southern Mahratta.	1,50,52	1,66,09	1,50,91	1,02,86	84,31	76,75	93,91	83,29	82,60	79,29	**76,03**
North Western	3,94,12	3,92,69	3,79,78	2,73,36	2,44,34	2,86,41	3,91,59	3,69,62	3,47,89	2,59,81	**2,27,15**
South Indian	1,14,45	1,38,66	99,02	77,04	1,13,30	1,06,60	1,23,76	1,14,51	1,05,72	93,76	**79,72**
Other Railways	31,08	41,01	42,63	42,59	36,87	39,33	46,55	43,75	52,69	57,14	**52,42**
Strategic lines	57,76	57,68	72,10	63,38	82,62	83,53	92,34	90,17	92,45	93,76	**90,89**
TOTAL	23,67,07	23,50,51	22,09,15	17,08,65	15,68,45	14,68,85	17,32,41	17,08,84	16,94,80	15,20,52	**13,65,33**

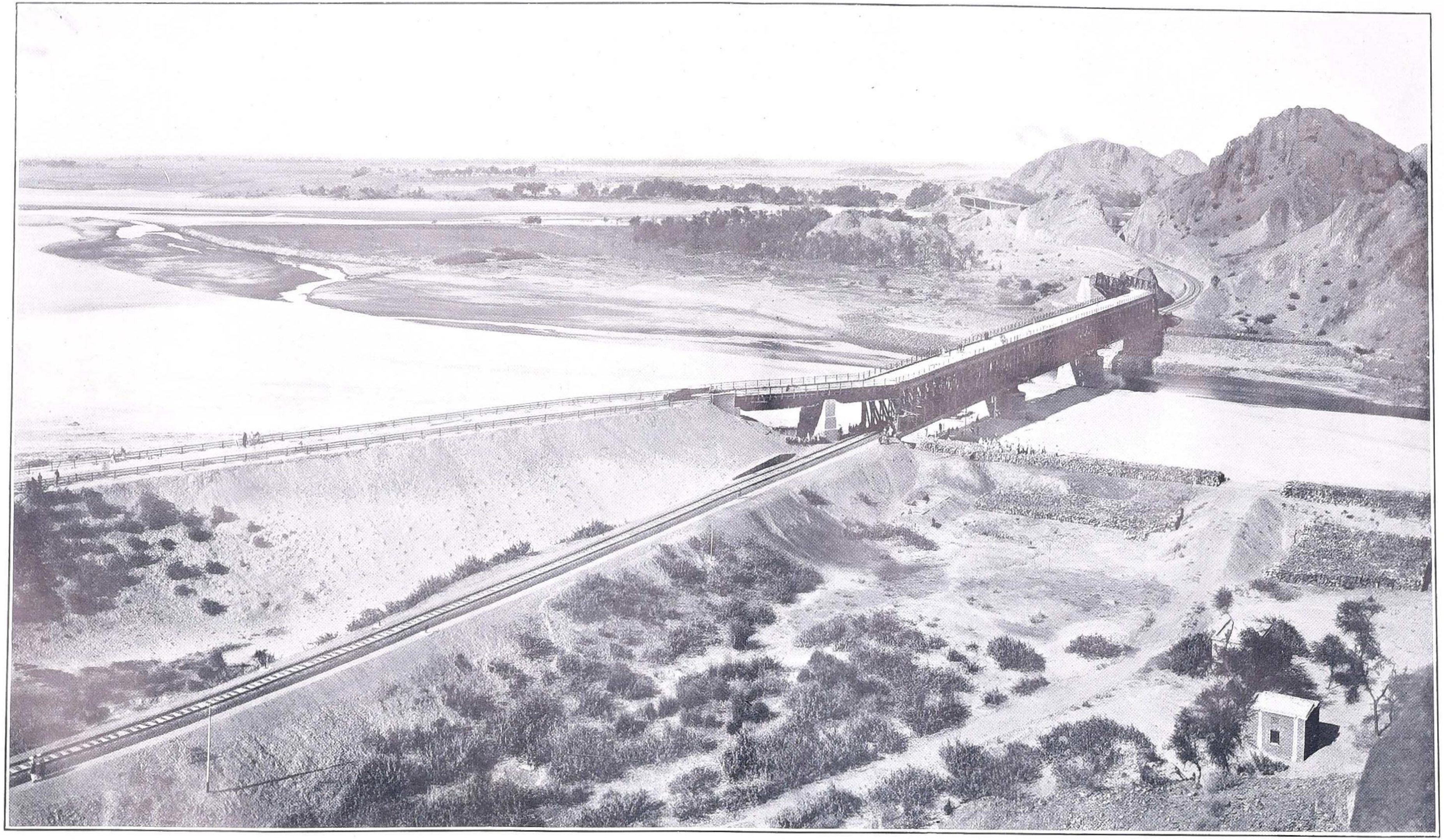
The special efforts of Railway Administrations to restrict purchases of new materials and to utilise as far as possible material already in stock resulted in a net reduction of nearly 1½ crores at the close of the year.

30. Compensation claims for goods.—The table below shows for each Class I railway the amounts paid on account of compensation for goods lost or damaged during the last seven years. It will be seen that the total payment for 1931-32 is substantially lower than in previous years. Incidentally, it may be remarked that in 1922-23 the amount of claims paid exceeded Rs. 120 lakhs.

*Claims for goods lost or damaged paid by Class I Railways (excluding Jodhpur Railway) during 1925-26 to 1931-32.**

Railways.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	Percentage to Goods Earnings.	
								1930-31.	1931-32.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Assam Bengal .	21,841	20,979	18,006	20,973	19,096	15,976	10,303	0·14	0·10
Bengal and North-Western.	92,932	85,369	59,875	45,387	56,914	26,865	25,291	0·16	0·15
Bengal Nagpur	80,093	54,988	65,248	1,02,726	77,437	60,128	11,878	0·11	0·02
Bombay, Baroda and Central India.	4,40,465	2,60,213	1,57,447	1,21,175	1,07,749	96,011	46,910	0·14	0·07
Burma . .	30,982	41,295	42,791	34,696	18,828	22,129	11,947	0·08	0·05
Eastern Bengal	1,86,736	1,83,822	1,71,266	1,53,676	1,08,306	83,409	47,013	0·25	0·17
East Indian .	11,73,008	3,82,219	2,36,368	2,27,600	1,75,501	1,10,596	90,624	0·09	0·08
Great Indian Peninsula.	3,41,130	1,92,400	1,18,333	1,45,133	1,11,392	1,15,364	1,11,645	0·13	0·15
Madras and Southern Mahratta.	91,018	84,859	80,517	95,330	1,28,478	70,612	51,557	0·15	0·10
His Exalted Highness the Nizam's State.	18,219	11,211	11,270	11,443	23,075	16,206	11,978	0·11	0·09
North Western	3,89,771	1,55,097	—36,383	99,446	78,321	1,26,939	65,900	0·13	0·07
Rohilkund and Kumaon.	17,088	4,318	7,347	7,204	5,775	2,611	4,574	0·07	0·13
South Indian .	48,536	45,169	17,691	28,350	12,992	18,826	13,732	0·07	0·05
TOTAL .	29,31,819	15,21,939	9,49,776	10,93,139	9,23,864	7,65,672	5,03,352	0·12	0·09

* These figures exclude the amount of credits afforded to home line departments for the loss of their goods.



Chenab Bridge showing completed project—Chiniot.

CHAPTER III.

NEW CONSTRUCTION AND ENGINEERING WORKS.

31. **Capital Expenditure.**—At the end of March, 1932, the total capital at charge on all railways, including those under construction, amounted to Rs. 876·34 crores, of which Rs. 789·79 crores was capital at charge on State-owned Railways inclusive of premia paid in the purchase of Companies' lines. The remainder, Rs. 86·55 crores, represented capital raised by Indian States, Companies and District Boards.

The capital at charge of State-owned Railways is composed as follows :—

	£
Liability and debt incurred in purchase of Railways .	150,106,630
Less liability and debt cancelled by the operation of Annuities and Sinking Funds	–29,284,941
Net amount outstanding	120,821,689*
	Rs. (omitting 000)
Direct expenditure by Government	6,28,55,07
The above figure converted at Rs. $13\frac{1}{3}$ = £1 . . .	1,61,08,96
Total .	7,89,64,03
Add Provincial Railways expenditure . . .	14,61
Grand Total .	7,89,78,64

By far the greater portion of this amount, namely, Rs. 7,56,87,10,000, is Government Capital and only 1/23rd or Rs. 32,91,54,000 is owned by Companies. These figures include Rs. 34·53 crores on account of capital expenditure to the end of March 1932, on strategic lines.

32. The total capital outlay on all railways during 1931-32 was Rs. 8·37 crores, of which Rs. 6·69 crores were spent on State-owned Railways. The following statement shows how this outlay of Rs. 6·69 crores was distributed between open line works, rolling stock and new lines, similar figures being given for the previous four years and for 1913-14.

Year.	Open Lines.			New lines.	Grand Total.
	Works including Stores and general charges.	Rolling-stock.	Total.		
	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.
1913-14	9·30	7·31	16·61	1·86	18·47
1927-28	17·21	5·37	22·58	9·86	32·44
1928-29	12·47	3·98	16·45	8·96	25·41
1929-30	18·12	5·55	23·67	6·51	30·18
1930-31	5·29	3·81	9·10	4·11	13·21
1931-32	**1·74**	**2·16**	**3·90**	**2·79**	**6·69**

*£118,246,689 converted at the rate of £1=Rs. $13\frac{1}{3}$ and £2,575,000 representing the Great Indian Peninsula Railway Company's share capital paid off during 1925-26 converted at the average rate of exchange.

33. The distribution of the capital outlay in 1931-32 over the different State-owned lines is shown in the summary below :—

Railways.	Open Lines.			New lines.	Grand Total.
	Works, etc.	Rolling-stock.	Total.		
	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.
Bengal Nagpur . . .	0·12	0·24	0·36	0·66	1·02
Bombay, Baroda and Central India	0·08	0·33	0·41	..	0·41
Eastern Bengal . .	0·12	0·04	0·16	0·37	0·53
East Indian	0·19	0·17	0·36	0·74	1·10
Great Indian Peninsula . .	0·11	0·45	0·56	0·06	0·62
Madras and Southern Mahratta .	0·43	0·25	0·68	..	0·68
North Western	0·07	0·16	0·23	0·28	0·51
South Indian . . .	0·41	0·16	0·57	0·29	0·86
Other Railways . . .	0·21	0·36	0·57	0·39	0·96
Total .	1·74	2·16	3·90	2·79	6·69

34. Lines opened during 1931-32.—570·10 miles of railways were opened to public traffic during the year and consisted of :—

308·06 miles on the 5′ 6″ gauge.
*121·50 miles on the 3′ 3⅜″ gauge.
140·54 miles on the 2′ 6″ and 2′ 0″ gauges.

35. Details regarding the sections opened are given below :—

Name of line.	Gauge.	Mileage.	Owner.	Working agency.	Date of opening.
Titlagarh to Teruwali . .	5′ 6″	74·00	State	Bengal Nagpur Railway.	31st March, 1932.
Kalukhali to Kamarkhali .	5′ 6″	26·28	State	Eastern Bengal Railway.	1st January, 1932.
Madhukhali to Bhateapara . .	5′ 6″	26·80	State	Do. .	1st March, 1932.
Utratia to Hydergarh . . .	5′ 6″	0·22	State	East Indian Railway	Not available.
Hydergarh to Sultanpur .	5′ 6″	51·46	State	Do.	1st February, 1932.
Tando Adam to Nawab Shah .	5′ 6″	53·80	State	North Western Railway.	10th December, 1931.
Tharushah to Sakrand . .	5′ 6″	66·06	State	Do. .	Ditto.
Shahpur to Khushab . .	5′ 6″	6·00	State	Do. .	25th April, 1931.
Chhinikhichi to Chiniot . .	5′ 6″	3·44	State	Do. .	12th March, 1932.
Chittagong to Dohazari .	3′ 3⅜″	25·05	State	Assam Bengal Railway.	10th June, 1931.
Chinnasalem to Vriddhachalam	3′ 3⅜″	31·76	State . .	South Indian Railway.	17th August, 1931.
Trivandrum to Thambanur . .	3′ 3⅜″	3·52	State . .	Do.	4th November, 1931.
Ragihosahalli to Arasalu . .	3′ 3⅜″	7·66	Mysore State .	Mysore State Railway.	25th May, 1931.
Kankroli to Garbor Road . .	3′ 3⅜″	24·56	Indian State Line	Udaipur Chitorgarh Railway.	20th January, 1932.
Varanasi to Gunupur . . .	2′ 6″	15·93	Do. .	Bengal Nagpur Railway.	16th November, 1931.
Jhagadia to Netrang . .	2′ 6″	18·75	Do. .	Bombay, Baroda and Central India Railway.	1st March, 1932.
Darwha to Pusad . . .	2′ 6″	42·65	State . .	Great Indian Peninsula Railway.	15th December, 1931.
Kalabagh Bridge	2′ 6″	1·78	Do. . .	North Western Railway.	9th August, 1931.
Warsamedi to Bachau . . .	2′ 6″	19·85	Cutch State .	Cutch State Railway.	14th April, 1931.
Ujjain to Agar	2′ 0″	41·58	Gwalior State .	Gwalior Light Railway.	15th March, 1932.

* Includes 28·95 miles (3′ 3⅜″ gauge) opened for goods traffic only which have not been included in the details shown under para. 34.

36. Lines sanctioned in 1931-32.—During the year under review sanction was accorded to the construction of new lines totalling 81·84 miles.

	Miles.
5′ 6″	*Nil*
3′ 3⅜″	31·49
2′ 6″	*Nil*
2′ 0″	50·35
Total	81·84

37. Lines under construction on 31st March, 1932.—At the end of the financial year 1931-32 a total of 317·81 miles of new lines was under active construction distributed as follows :—

	Miles.
5′ 6″ gauge	175·82
3′ 3⅜″ gauge	141·99
2′ 6″ and 2′ 0″ gauges	*Nil*
Total	317·81

38. The lines under active construction are given in the table below which also shows the construction agencies and the progress reached :—

Name of line.	Gauge.	Mileage actually under construction.	Working agency.	* Progress of work (Proportion completed) on 31st March 1932.
1. Calcutta chord	5′ 6″	9·34	East Indian Railway	·98
2. Sultanpur-Zafarabad (Lucknow-Sultanpur-Zafarabad).	5′ 6″	56·78	Do.	·94
3. Bidar-Purli	5′ 6″	109·70	His Exalted Highness the Nizam's State Railway.	·70 on Bidar Udgir. ·47 on Udgir Purli.
4. Irrawady Bridge at Sagaing	3′ 3⅜″	4·86	Burma Railways	·56
5. Remaining portion of Tangla Rangapara.	3′ 3⅜″	52·52	Eastern Bengal Railway.	·63
6. Visavadar-Dhari (Talala-Dhari)	3′ 3⅜″	19·51	Junagad Darbar	·50
7. Garbor Road-Kambli (Mauli Sursingh-ji-ka-Guda).	3′ 3⅜″	22·24	Mewar Darbar	·98
8. Arasalu-Anantapur	3′ 3⅜″	9·35	Mysore Railway	·10
9. Pollachi-Palghat	3′ 3⅜″	33·51	South Indian Railway.	1·00 Opened for public traffic on 1st April 1932.
Total	...	317·81	..	

39. The following is a brief account of the more important lines the construction of which was sanctioned or which were under construction during the year :—

Tangla-Belsiri-Rangapara Railway.—The construction of this line by the Eastern Bengal Railway was sanctioned in June, 1929. It is a metre gauge line about 52 miles long and is intended to serve the country lying between the Brahmaputra and the outer ranges of the Himalayas. Progress has been satisfactory and it is expected that the whole line will be opened for passenger traffic in January, 1933.

* ·30 signifies that $\frac{3}{10}$th of the work has been done.
·50 signifies that half the work has been done.
1·00 signifies completion of the work.

Calcutta Chord Railway.—During the year under review the construction of the Calcutta Chord Railway was successfully completed after about 5 years of strenuous work. The line takes off from Dankuni, a station on the Howrah-Burdwan Chord, and crossing the River Hooghly near Bally, joins the Eastern Bengal Railway at Dum Dum junction. This line gives East Indian and Bengal Nagpur Railways direct access to the Docks and has been constructed to the Heavy Mineral Standard of Loading. The main feature of the line is the Bally Bridge (now known as the Willingdon Bridge), which consists of seven spans of 350 feet girders and two land spans of 80 feet girders, and carries a double line of railway track, two roadways each 18 feet wide and two footpaths each 8 feet wide. The Bridge was open for both road and rail traffic in December, 1931 by His Excellency the Earl of Willingdon, Viceroy and Governor-General of India. The complete chord was opened to goods traffic in February, 1931 and it is expected that the banks will be sufficiently consolidated after the next monsoon to permit of the line being opened to passenger traffic in January, 1933.

Garbor Road-Sursinghji-Ka-Gudha Section.—A proposal for the construction of a line from Mavli, a station on the Udaipur Chitorgarh Railway, to Gudha Sursinghji—a length of 75 miles on the metre gauge was put forward by the Udaipur Darbar in 1927. It was sanctioned in September, 1928 at an estimated cost of Rs. 62 lakhs. The Garbor Road-Sursinghji branch—32·23 miles in length—is the fourth section of the Mavli Sursinghji-Ka-Gudha to be opened, making an aggregate length of 75 miles. This branch will terminate at Sursinghji station on the Marwar Junction—Sanderao Loop Line of the Jodhpur Durbar. Out of the total length of 75 miles, 66 miles lie in the Mewar State, 2 miles in Ajmer-Merwara and 7 miles in the Marwar State territory. The line is financed and is being constructed by the Udaipur Durbar and the Government of India have no financial liability in it.

Arasalu-Anantapur Railway.—The construction of this branch, a length of 9·35 miles on the metre gauge, was sanctioned in July, 1931 at an estimated cost of Rs. 7,58,381. The line lies entirely in the Mysore State territory. This extension will serve the interior portions of the Shimoga district in which hitherto no means of communication existed. It may be further extended to Sagar, which is the headquarters of a very important Taluq, and the further extension as contemplated (on the main road from Bangalore to Hannaver) will moreover bring the world-famous Gersouppa Falls within reach of 30 miles by road and undoubtedly stimulate trade and develop a large extent of interior territory that is rich in forest produce and minerals, but which suffers at present from want of means of rapid communication and from the prevalence of malaria. The line is financed and is being constructed and worked by the Mysore Government and the Government of India have no financial interest in it.

Chamarajanagar to Kollegal.—The construction of this branch, a length of 22·14 miles, was sanctioned in December, 1931 at an estimated cost of Rs. 15,72,905. The entire line, with the exception of 3½ miles in British territory, lies in the Mysore territory. The possibility of the construction of the Chamarajanagar Satyamangalam Railway, as well as an eventual extension of the new line beyond Kollegal to Maddur, has to be kept in view in fixing the direction of entrance of the branch into Chamarajanagar station and locating the station site at Kollegal. The railway will be financed, constructed and worked by the Mysore Government and the Government of India have no financial liability or interest in the scheme.

The Vikarabad-Bidar Extension Railway: (Bidar-Purli Railway Extension).—A proposal for the construction of a railway line from Bidar, the terminus of the Vikarabad-Bidar Railway, the property of His Exalted Highness the Nizam's State Railway, to Gangakhed, a length of 113·12 miles on the broad gauge, lying entirely in the Hyderabad State territory, was put forward in 1930. It was estimated to cost 95·7 lakhs. The object of the line is primarily to serve the fertile area between Bidar and Gangakhed and carrying traffic which is at present carted over long distances to and

Karnafuli Bridge—Chittagong-Dohazari Branch.

from the Great Indian Peninsula Railway, the Barsi Light Railway and the Hyderabad Godavari Valley Railway. Should it be found necessary to connect the line with the Barsi Light Railway at Letur, the most suitable junction would be at Chakur station at mile 69·5 on the railway. The project was sanctioned in December, 1930. The Nizam's Government, however, subsequently obtained approval to certain alterations in the alignment originally sanctioned. The first 70 miles remains substantially the same as in the original project and the construction of the portion 50 miles in length up to Udgir station is now practically ready for opening. The alignment of the remaining 42·12 miles has been altered to make the junction at Purli instead of at Gangakhed. This, together with minor re-alignments elsewhere, is expected to result in a saving of 2·2 miles over the original project. The line is financed and is being constructed by His Exalted Highness the Nizam's Government.

Pollachi-Palghat Railway—33·51 miles.—In last year's report attention was drawn to the difficulties experienced in the construction of this line, arising notably out of the unusually hard soil met with and the presence of a malarious belt about 10 miles wide in which it was very difficult to retain labour.

These difficulties were, however, successfully surmounted and the line was made ready for opening on the 1st April, 1932, the first day of the new financial year. The new line is really an extension of the metre gauge railway from Dindigul to Pollachi and as it traverses fairly populous country and connects up important trade centres, it is expected to facilitate the exports of considerable quantities of local produce.

40. Important lines opened during 1931-32.—Of the lines opened during the year, the following may be specially mentioned :—

Chittagong-Dohazari Railway.—This line was opened to passenger traffic in June, 1931. It is a metre gauge line 25 miles in length connecting Sholashahar, a station on the Nazirhat Branch of the Assam-Bengal Railway, with Dohazari, a village 29 miles from Chittagong. The line crosses the Karnafuli river 9 miles from Chittagong by a fine bridge two-fifths of a mile long and establishes railway communication between Chittagong and a large area of very densely populated country on the left bank of the river.

Raipur-Vizianagram Railway, Bengal Nagpur Railway.—The Titlagarh-Theruvali section, 74·01 miles long, which forms the last link of the Raipur-Vizianagram Railway, was opened for traffic on 31st March, 1932. With its completion, a shorter and more direct route has been opened between Central India and the East Coast with the new harbour at Vizagapatam. The country traversed by the section recently opened is mostly hilly and in several places has an evil name for a malignant type of malaria which the staff had to contend with during construction. The line lies partly in the Patna and Kalahandi States and partly in the Vizagapatam District of the Madras Presidency, and has been built to a heavy standard on account of the mineral traffic expected over it.

Kalukhali-Bhateapara Railway.—This is a line 53 miles long, designed to serve Faridpur District in Eastern Bengal, in lieu of the rapidly deteriorating rivers Chandana and Barasua, which hitherto have provided the chief means of communication. The section from Kalukhali to Kamarkhali Ghat, representing about half the whole project, was opened on the 1st January, 1932, and the second section which takes off from Madhukhali and ends at Bhateapara was opened on the 1st March, 1932.

Lucknow-Sultanpur-Zafarabad Branch.—As stated in the report for the year 1929-30, the Lucknow-Sultanpur-Zafarabad Branch takes off from Utraitia station on the Moghalserai-Lucknow Chord. The first section from Utraitia to Hydergarh, a length of about 28 miles, was opened to traffic in March, 1931. The second section of the Branch line from Hydergarh to Sultanpur, a length of 51·46 miles was opened in February, 1932. This section makes a junction with the Allahabad-Fyzabad Branch at Sultanpur.

F

The last section from Sultanpur to Zafarabad is expected to be ready for opening shortly.

Darwha-Pusad Railway (2′ 6″ Gauge).—The Darwha-Pusad Railway, 43 miles in length, has been constructed by the Great Indian Peninsula Railway and was opened for traffic on 15th December, 1931. It forms a branch of the Murtazapur Yeotmal section of the Central Provinces Railway which it joins at Darwha-Motibagh and is being worked by the Agency of the Great Indian Peninsula Railway. The line has been built with the object of tapping a fertile stretch of cotton-producing country and runs through undulating and somewhat hilly country. Pusad and Digras are the main markets in this area.

Chiniot-Khushab Railway.—The Chiniot-Khushab Railway was mentioned in the last year's report as being open to the public conveyance of traffic throughout except for two small sections which included two important bridges. The Shahpur City-Khushab section, a length of 6 miles, was opened to traffic in April, 1931, and is an extension of the Sargodha-Shahpur City section, completing the link between Sargodha and Khushab. The river Jhelum is crossed by a girder bridge of 15 spans of 144 feet clear waterway. The other section from Chiniot to Chhini-Khichi, a length of 3·44 miles, including a bridge over the river Chenab consisting of 7 spans—1 of 195 feet, 5 of about 198 feet and 1 of 205 feet of clear waterway, with a cement concrete roadway, was opened on the 12th March, 1932.

Sind Left Bank Feeders.—As stated in the Railway Board's report for 1930-31, the Mahrabpur-Padidan section of the Sind Left Bank Feeders was opened for public traffic in May, 1930. The opening in December, 1931 of the other two sections, *viz.*, the Nawabshah-Tando Adam loop, 53·80 miles, and the Tharushah-Sakrand Chord, 66·06 miles, completes the whole project, a total length of 163·49 miles. These feeders have been constructed to serve the area in Northern Sind between the North Western Railway main line to Karachi and the River Indus, an area that is shortly to come under irrigation from the canals of the Sukkur Barrage.

Chinnasalem-Vriddhachalam Section—31·76 miles.—This section, which was opened for traffic on the 17th August, 1931, completes the Salem-Vriddhachalam Railway project which, with the Vriddhachalam Cuddalore Railway, opened on 21st June, 1928, affords an important cross connection between Salem Junction on the broad gauge and Cuddalore on the metre gauge of the South Indian Railway. The line will open out fertile tracts of country hitherto unserved by railways and will considerably facilitate traffic in the direction of Cuddalore Port.

41. Important New Works.—*Vizagapatam Harbour.*—The progress made in connection with the construction of the Vizagapatam Harbour kept pace with the programme framed for the year. The Suction Dredger "Vizagapatam" was engaged in dredging a section of the Northern Basin and also in the inner and outer channels over certain rocky areas. The cutter and a special suction nozzle were able to loosen and remove a portion of the rock and moorum, and this considerably reduced the material to be blasted or broken by the Rock Breaker. The combined Dipper Dredger and Rock Breaker "Waltair" and the crane barges "Mudlark" and "Gamine" worked throughout the year on the removal of hard material and on clearing away silt in various places. The Dragline Excavator first worked along the Northern Bank of the Entrance Channel and was then taken to the Southern fringe of the Eastern Reclamation area, and set to work on cutting the Southern Lighter canal. By the end of the year a total area of 185 acres had been reclaimed on the Eastern side between the Harbour and the town of Vizagapatam. Of this, 141 acres are provisionally earmarked for Port purposes and 44 acres are available to the public for office sites, etc. All the roads and drains in the Development area and the main access road to Vizagapatam were completed during the year. Service water mains along the roads have also been laid. Transit shed No. IV was completed, including the surrounding macadamised areas, and brought into use. The Lighter canal opposite shed No. IV was widened and deepened and two timber

Trestle Bridge to replace existing ravine viaduct No. 2 Mhow Ghats.

jetties and railway siding provided for handling of lighter traffic. All sidings to the General Berth and Storage Depôt have been completed. The heavy floods and rains in October and November, 1931, caused a number of breaches in the reclamation bunds and undermined the bund of Western Industrial area alongside the Diversion Channel. These breaches have been made good and the Diversion Channel Bund has been strengthened throughout its length. The anti-malarial measures continued to be successful throughout the year.

Dohad Workshops, Bombay, Baroda and Central India Railway.—A brief account of this project appeared in last year's report. During the year under review most of the works comprised in the schemes for the "Locomotive Repair" and "Manufacturing" units were carried to completion with the exception of the Foundry, the Electric Power Supply and certain workshop machinery which, however, were left very nearly complete. A fair rate of progress was also maintained on such of the further works undertaken during 1930-31 as were intended to provide additional housing for the staff of the Locomotive Repair and Manufacturing units and other amenities for the employees in the Workshop Colony.

Bridge over the Irrawaddy at Sagaing.—This project, which was sanctioned in November, 1927, and is estimated to cost Rs. 1½ crores, is more than half completed. It is hoped that the bridge will be ready for service by the end of 1933.

42. Open Line Improvements.—*Barakar Bridge.*—The down line of the East Indian Railway at the crossing of the Barakar river on the Grand Chord section is carried on a separate bridge constructed in 1893. The girders and piers were both weak for modern loads and a speed and load restriction had been in force for several years.

The renewal of the girders to H. M. Standard was considered essential to enable the down line to deal with the heavy traffic from the coal-fields. The new girders have been designed on a system new in India to give centralized loading on the piers for any position of the train and this, in conjunction with a reduction of height in the piers, effects the requisite strengthening of the latter, in addition to the strengthening of the girders. The scheme was estimated to cost Rs. 9,60,616 and was sanctioned on the 11th January, 1932.

Rup Narain Bridge.—The doubling of this bridge was sanctioned in March, 1929, at an estimated cost of Rs. 55,73,916 and continuous progress has been made during the year 1931-32. During this period the pile foundation for the erection staging in Bay No. 1 was completed and the staging itself, along with the erection Traveller, was erected, as was also the false work for the 6 remaining bays.

The Power House and Workshop plant has been erected and tested. Work is in progress on the erection of the electric installation for launching the new girders by means of a special track and specially designed electric tractors. It is hoped to complete the first 300 feet span to be used as an erection bay by the end of May, 1932 and to run out the first individual girder in August, 1932.

Kotri Bridge over the River Indus, North Western Railway.—Sanction to the remodelling and strengthening of the girders of Kotri Bridge was accorded in July, 1930. Good progress has been made and the work of strengthening the bridge and providing cantilevered roadways on either side is nearing completion.

Bridges on the Delhi-Ambala Section, viâ *Panipat.*—The generally weak condition of the bridges under present day loads necessitated a number of speed restrictions and imposed a serious barrier to the traffic development of this section.

It was therefore considered necessary to strengthen the section. Where possible, existing girders will be strengthened and in other cases new girders will be provided.

An estimate amounting to Rs. 12,20,097 was sanctioned for this purpose on 1st August, 1931.

Renewal of Girders of combined Railway and Roadway Bridges on the Cawnpore-Achnera Section.—It was decided, in accordance with the policy of co-ordinating bridge and engine renewals, to regirder, during the year under review, three of the four combined railway and roadway bridges on this section and bring them up to H. M. Standard as they were too weak for the types of engines required to run on the section. The old girders of all the minor bridges and ordinary major bridges of the section had previously been renewed. An estimate amounting to Rs. 6,95,953 was sanctioned on the 20th June, 1931.

Renewal of girders on the Kalakund-Khandwa section.—An estimate amounting to Rs. 6,35,796 for renewing all the girders between Kalakund and Khandwa, except those of the Nerbudda Bridge was sanctioned on the 24th August, 1931. This work was found to be necessary as the old girders were overstressed by the heavier locomotives which are now being employed to handle the traffic.

Renewal of girders on the Rutlam-Mhow section.—This section forms part of the length which it has been decided to bring up to H. M. Standard with as little delay as possible, the old girders being overstressed by the new locomotives which are replacing the older and lighter types. An estimate amounting to Rs. 15,53,910 for girder bridge renewals was sanctioned on the 24th July, 1931.

Re-sleepering in the Rutlam Division between Mahidpur and Shamgarh, Bombay, Baroda and Central India Railway.—The condition of the timber sleepers of various descriptions in the 123 mile section of the Bombay, Baroda and Central India Railway main line north of Rutlam was found to be unsatisfactory and with the heavier engines employed the speed of Mail trains had to be restricted to 45 miles per hour. Certain palliative measures, such as double spiking, extra ballast and improvements to the drainage having been tried and proved ineffective, it was decided to replace the wooden sleepers by steel trough sleepers of modern design fitted with loose jaws. It is proposed to spread the work of relaying over three years, commencing with 1931-32, and an estimate for the first instalment, between Mahidpur and Shamgarh, about 44 miles, was sanctioned in February last.

Shoranur-Cochin Railway Conversion (South Indian Railway).—Shoranur-Cochin State Railway, 65 miles in length, which was originally built in 1902, is being converted from metre to broad gauge in order to serve the increased requirements of the Cochin Harbour. About 15 per cent. of the work is completed and it is expected that the line will be ready for opening by about April, 1934. The line is the property of the Cochin Durbar and they are financing the conversion project.

Chandmaree Road Overbridge, East Indian Railway.—The existing bridge carrying the Grand Trunk Road over the East Indian Railway at Howrah called the Chandmaree Bridge, consists of one plate girder of 56 feet and one Lattice girder of 110 feet span. Both these girders are in a very bad condition. The 56 feet span has been temporarily propped up with steel trestles and the 110 feet span has now a negative camber and is unsafe. A restriction to 4 ton axle loads and ten miles per hour for road traffic has had to be imposed on this overbridge which is in a busy industrial centre. In addition the height of the girders is such as to constitute an infringement of headway for rail traffic into Howrah station. An estimate amounting to Rs. 5,85,619 has accordingly been sanctioned for the entire reconstruction of the bridge and the work is in progress. In the estimate provision has been made for one through span of 216 feet clear giving room for two additional lines and a clear headway of 17 feet 9 inches over the railway track.

CHAPTER IV.

TRANSPORTATION AND WORKING.

43. Statistics.—The business handled by railways is reflected in the figures of passenger miles for passenger traffic and net ton miles for goods traffic. These figures are arrived at by multiplying the total number of passengers and tons carried by the number of miles over which they are moved. The following table compares the amount of traffic, expressed in terms of passenger and ton miles, carried over Class I railways in 1931-32 with the previous two years.

Particulars.	In thousands.			
	1929-30.	1930-31.	**1931-32.**	Percentage of increase or decrease compared with 1930-31.
Passenger miles	22,194,143	19,708,551	**17,339,974**	—12·0
Net ton miles	20,785,621	19,711,926	**17,735,676**	—10·0

It will be seen that there has been a considerable drop in passenger and net ton miles during the year under review, due mainly to the general decline in the trade of the country. These figures, which do not include materials and stores carried in departmental trains, *i.e.*, trains run by railways for their own purposes, represent about 97 per cent. of the total traffic carried on all Indian Railways.

Service performed.—The following table shows the number of train miles run in carrying the abovementioned traffic. It will be observed that there has been an appreciable decrease in passenger and goods train miles on all gauges during the year under review as compared with 1929-30 and 1930-31. Full details of train and engine miles of Class I railways will be found in Statement No. 17 of Volume II, and that of Classes II and III railways in Statement No. 37.

Particulars.	Class I Railways Broad Gauge (in thousands).				Class I Railways Metre Gauge (in thousands).				Class I Railways Narrow Gauge (in thousands).			
	1929-30.	1930-31.	**1931-32.**	Percentage of variations with 1930-31.	1929-30.	1930-31.	**1931-32.**	Percentage of variations with 1930-31.	1929-30.	1930-31.	**1931-32.**	Percentage of variations with 1930-31.
Passenger (including proportion of mixed) train miles.	70,328	69,211	**63,139**	—8·77	31,924	32,269	**30,444**	—5·65	2,413	2,530	**2,374**	—6·17
Goods (including proportion of mixed) train miles.	44,358	42,094	**37,290**	—11·4	22,724	21,228	**18,920**	—10·9	1,753	1,701	**1,613**	—5·17

In addition to the train services mentioned above, a large amount of directly unproductive or "other" engine miles, *viz.*, shunting, light and assisting, has been run. This mileage was equivalent to 17 per cent. of the

traffic engine miles. The departmental train mileage, which is also unproductive, amounted to 97 thousand miles, or about 5 per cent. of the traffic engine miles. Of the unproductive mileage, the largest portion consists of shunting. The following table shows the proportion of shunting engine mileage per 100 train miles for the last three years both on the broad and metre gauges.

Particulars.	Broad Gauge.				Metre Gauge.			
	1929-30.	1930-31.	**1931-32.**	Percentage of variations with 1930-31.	1929-30.	1930-31.	**1931-32.**	Percentage of variations with 1930-31.
Shunting miles per 100 train miles (Passenger and proportion of mixed).	5·23	5·31	**5·54**	+4·33	5·25	5·10	**5·04**	—1·18
Shunting miles per 100 train miles (Goods and proportion of mixed).	37·7	37·5	**36·4**	—2·93	32·7	33·2	**31·7**	—4·52

Goods trains.—The average through speed of goods trains which is the average speed worked out on the total time taken by a train from start to finish of its run inclusive of stops *en route* shows an improvement, being 11·0 miles per hour on the broad gauge and 10·5 on the metre gauge as compared with 10·5 and 10·3 respectively for the previous year. The average net load of a goods train increased from 384·5 to 388·6 on the broad gauge and from 160·4 to 165·9 on the metre gauge. The final index of goods train working, *viz.*, " net ton miles per engine hour " increased from 1,678 in the previous year to 1,823 on the broad gauge and from 763 to 830 on the metre gauge.

Engines.—The work done by engines is expressed by the figure " Engine miles per engine per day ". Based on the number of engines on the line, this figure showed a decrease on the broad gauge from 68 to 60, whereas on the metre gauge it increased from 61 to 62. Based on the number of engines in use, the number of engine miles per engine per day dropped from 116 to 103 on the broad gauge, but remained the same as last year, *viz.*, 99 on the metre gauge. The percentage of engines under or awaiting repairs has decreased from 19·0 to 18·1 and from 15·6 to 14·3 on the broad and metre gauges, respectively.

44. Wagon usage.—The extent to which the available wagon stock was utilised is expressed either in the average number of miles run per wagon per day, both loaded and empty wagons being taken into account, or in the average number of net ton miles performed by a wagon per day. It should, however, be noted that in the case of both statistics, the figures indicate the work done by the total number of wagons on railways and not only by the wagons actually in use, as all empty wagons are also taken into account, whether running or stabled in sidings. The following table shows these two results for 1931-32 compared with the previous year.

	Wagon miles per wagon day.		Net ton miles per wagon day.	
	1930-31.	**1931-32.**	1930-31.	**1931-32.**
Broad Gauge	36·0	**31·5**	314·2	**277·0**
Metre Gauge	28·0	**25·4**	137·4	**128·2**

The average percentage of unserviceable wagons to the total number of goods wagons showed an increase from 5·66 to 7·85 per cent. on the broad gauge, but the percentage fell from 3·55 to 2·63 on the metre gauge.

Passenger vehicles.—The percentage of passenger vehicles under or awaiting repairs to the total number on the line increased from 9·91 to 10·34 per cent. on the broad gauge but dropped from 8·80 to 8·30 on the metre gauge.

Turning to individual railways some of the principal features of the year's transportation working are detailed below :—

Bengal Nagpur Railway.—The net ton miles per engine hour increased from 1,585 to 1,645.

Eastern Bengal Railway.—The shunting miles per 100 passenger train miles on the metre gauge rose from 8·23 to 8·82, while the figures per 100 goods train miles were appreciably reduced, *viz.*, 59·9 to 47·6.

The net load of goods trains increased from 355 to 373 on the broad gauge.

Great Indian Peninsula Railway.—The average load per passenger train increased from 396 to 399. The percentage of engines under or awaiting repairs in sheds and transportation workshops decreased from 15·6 in 1930-31 to 13·9 in 1931-32.

The total gross ton miles amounted to 10,202,894,000 in 1931-32 against 11,412,460,000 in 1930-31 or a decrease of 10·6 per cent. whereas the total quantity of coal consumed on all locomotive services was 718,813 in 1931-32 against 891,666 in 1930-31 or a decrease of 19·4 per cent.

Madras and Southern Mahratta Railway.—The net ton miles per engine hour have advanced from 1,454 to 1,600 on the broad gauge and from 707 to 777 on the metre gauge.

The net load in tons per goods train improved from 326 to 334 on the broad gauge and from 124 to 130 on the metre gauge.

North Western Railway.—On the broad gauge the net ton miles per engine hour have advanced from 1,712 to 1,818.

The average number of loaded wagons per train increased from 35·5 to 37·6 on the main line and from 23·1 to 24·1 on the branch line. The net load in tons per goods train consequently rose from 347 to 348.

South Indian Railway.—The net train load rose from 210 in 1930-31 to 220 in 1931-32 on the broad gauge and from 142 to 150 on the metre gauge.

The average wagon load increased from 8·86 in 1930-31 to 9·24 in 1931-32 on the broad gauge and from 5·52 to 5·69 on the metre gauge. The net ton miles per wagon day increased from 249 to 259 on the broad gauge but decreased from 103 to 93 on the metre gauge.

The engine miles per day per engine in use increased from 104 to 110 on the broad gauge and from 98 to 100 on the metre gauge. The following table shows the distinct improvement in the net ton miles per engine hour :—

	1930-31.	1931-32.
(*a*) Including Departmental—		
Broad Gauge	710	**835**
Metre Gauge	493	**578**
(*b*) Excluding Departmental—		
Broad Gauge	933	**1,027**
Metre Gauge	713	**781**

The figures of cost of repairs and maintenance of rolling stock show substantial reductions that have been made during the year under review as

compared with 1930-31 in almost all Class I railways. The following shows the railways which have effected the largest reductions :—

Railways.	Cost per equated engine mile.		Cost per carriage on line.		Cost per wagon on line.	
	1930-31.	1931-32.	1930-31.	1931-32.	1930-31.	1931-32.
	As.	As.	Rs.	Rs.	Rs.	Rs.
Bengal Nagpur	3·26	2·96	1,103·6	935·7	144·2	100·9
Bombay, Baroda and Central India—						
Broad Gauge	4·38	3·36	..	..	..	..
Metre Gauge	5·32	4·34	450·1	374·0	..	..
Eastern Bengal—						
Broad Gauge	2·80	2·55	537·0	383·6	..	..
Metre Gauge	3·46	2·77	425·3	320·2	..	..
East Indian	3·43	3·07	691·2	608·5	..	..
Great Indian Peninsula	..	..	999·3	714·6	..	..
Madras and Southern Mahratta—						
Broad Gauge	4·51	3·89	770·2	544·5	162·2	98·7
Metre Gauge	3·87	3·56	348·4	335·4	..	..
North Western	..	..	528·2	454·0	136·3	91·7
His Exalted Highness the Nizam's State (Metre Gauge).	..	..	935·7	632·9	..	..
South Indian (Metre Gauge)	3·93	3·24	259·4	221·0	50·5	26·9

45. Fuel Economy.—The results obtained from the Fuel Economy campaign during 1931-32 are illustrated in graphical form opposite page 34. The results are satisfactory.

The Fuel Economy Committee met the Fuel Officers of State Railways once during the year 1931-32 (in July, 1931) to review the progress and results obtained by State Railways and to discuss further measures to be adopted to attain economy in coal consumption.

46. Punctuality of passenger trains.—The following table shows the running of passenger trains on Class I railways from the point of view of punctuality.

Percentage of passenger trains not losing time to total number of trains run during 1931-32 as compared with 1930-31.

—	All trains.	Mail and important through trains.	Mixed trains.	Suburban trains.	Other passenger trains.
Broad Gauge.					
1931-32	83·5	**74·5**	**83·2**	**83·8** **91·2***	**81·6**
1930-31	76·0	69·2	79·6	76·7 93·7*	75·0
Metre Gauge.					
1931-32	**80·5**	**72·5**	80·5	**91·5**	**76·2**
1930-31	75·6	68·3	77·2	83·3	70·5

It will be seen that on the broad gauge although the percentage of trains not losing time shows a falling off under suburban electric trains, the percentage for all trains has increased from 76·0 in 1930-31 to 83·5 in 1931-32. On the metre gauge there has been a substantial improvement in the running of all passenger trains.

47. Through Mail and Express Services.—The only changes in the running of mail and express services which may be referred to are :—

(*a*) Nos. 71 Up and 72 Down express trains running between Howrah and Saharanpore on the East Indian Railway were extended to

* Great Indian Peninsula and Bombay, Baroda and Central India Railways Electric trains.

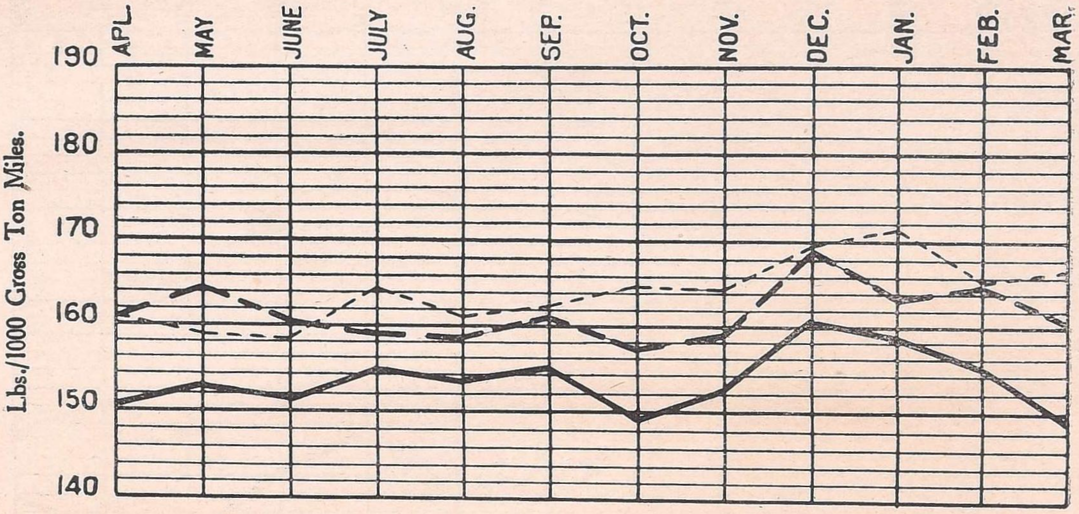
COAL CONSUMPTION.

EAST INDIAN RAILWAY.

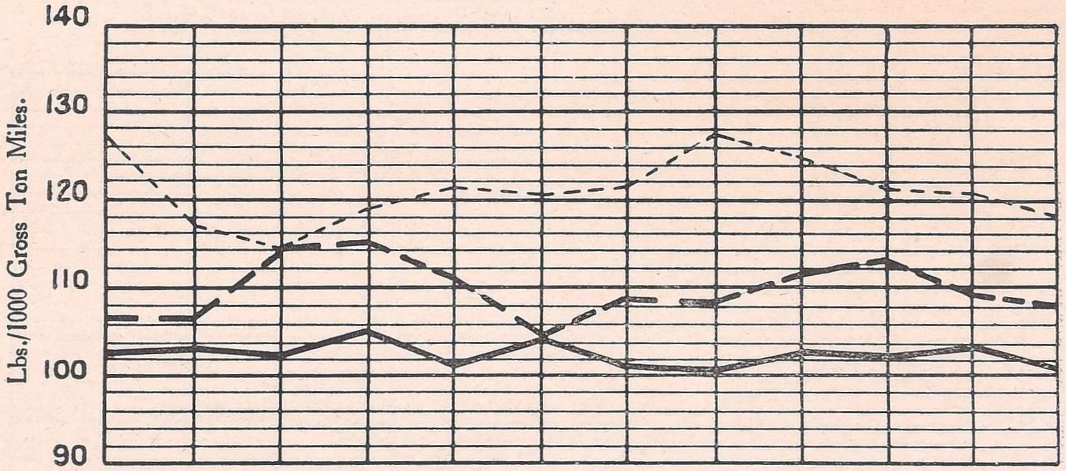
5′-6″ GAUGE.

1926-27 - - - - - - -
1930-31 — — — —
1931-32 ————

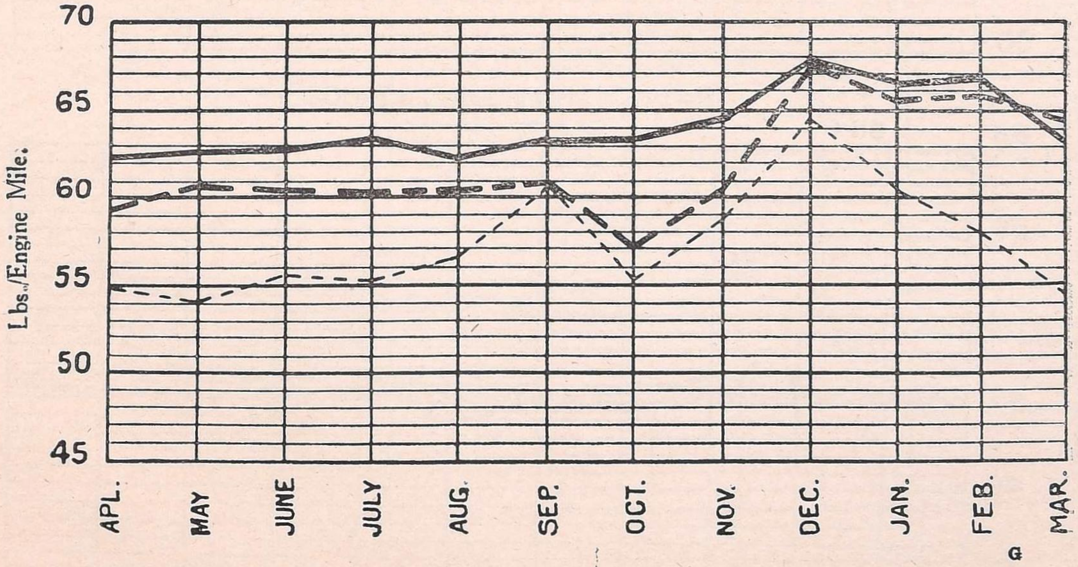
PASSENGER SERVICES (INCLUDING PROPORTION OF MIXED SERVICES).



GOODS SERVICES (INCLUDING PROPORTION OF MIXED SERVICES).



SHUNTING (INCLUDING SIDINGS).



COAL CONSUMPTION.

EASTERN BENGAL RAILWAY.

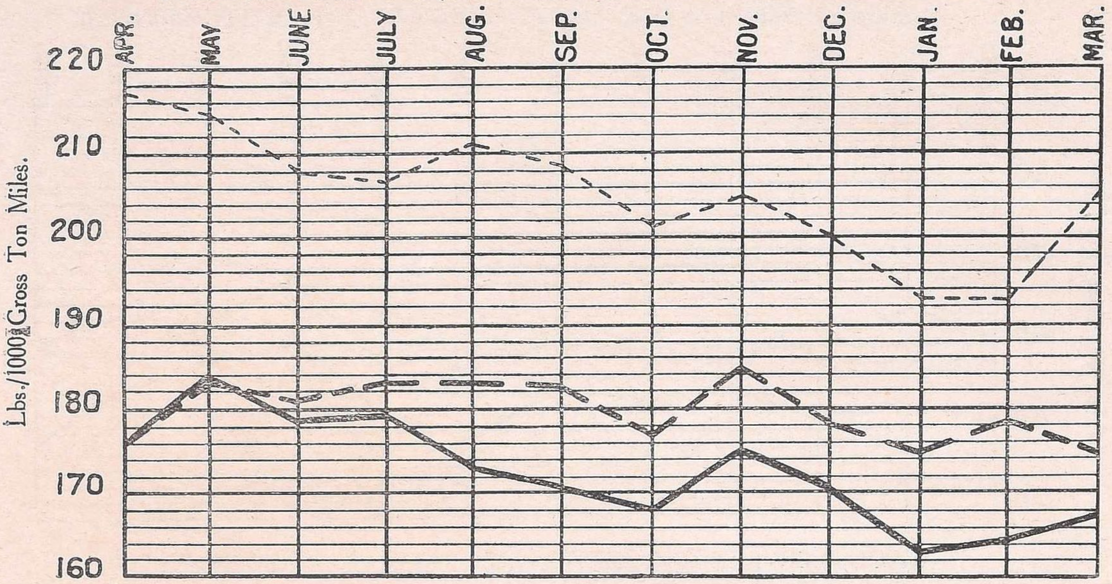
5′-6″GAUGE.

1926-27 - - - - - -

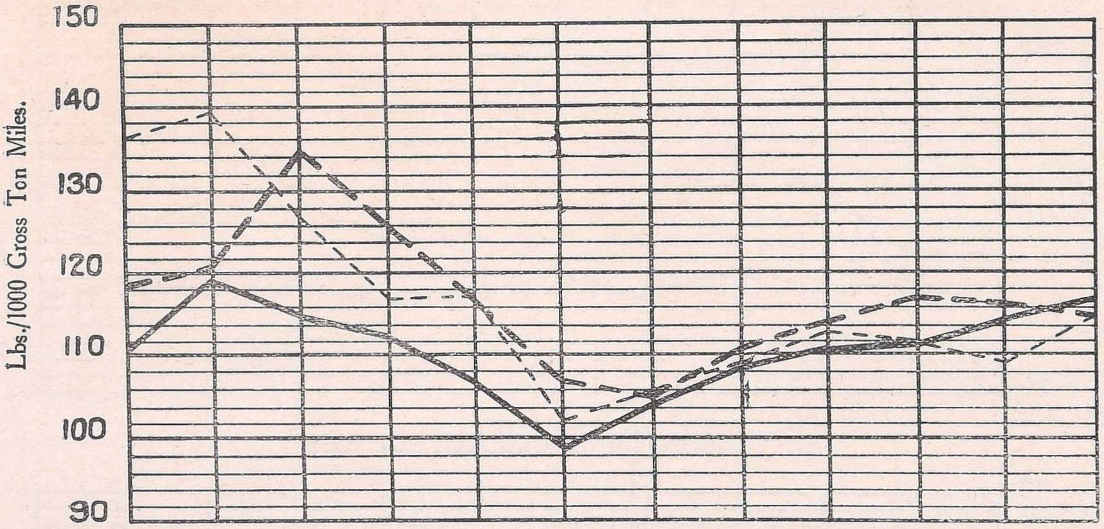
1930-31 — — — —

1931-32 ————

PASSENGER SERVICES (INCLUDING PROPORTION OF MIXED SERVICES).



GOODS SERVICES (INCLUDING PROPORTION OF MIXED SERVICES).



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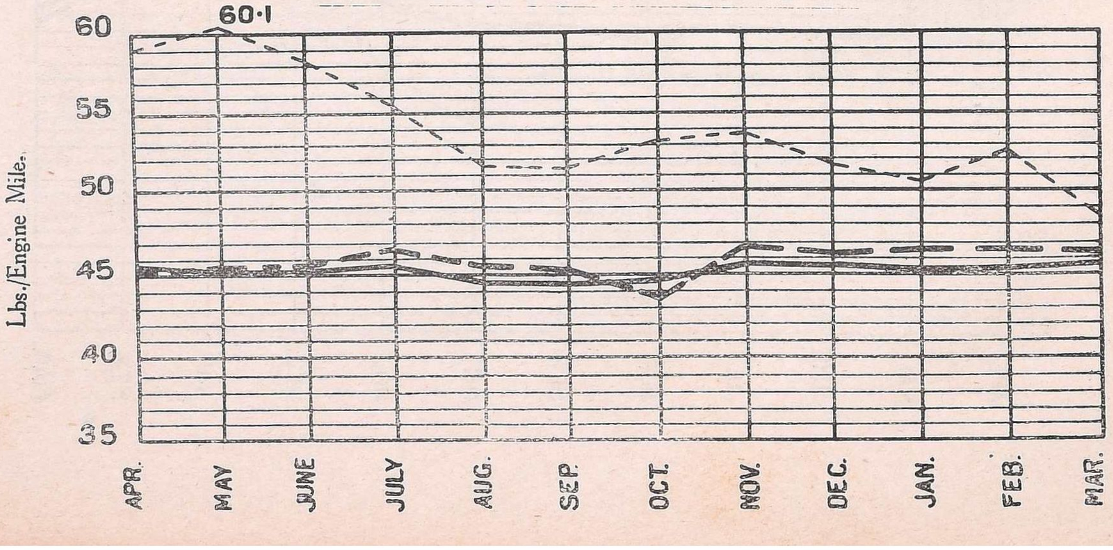


COAL CONSUMPTION.

EASTERN BENGAL RAILWAY.

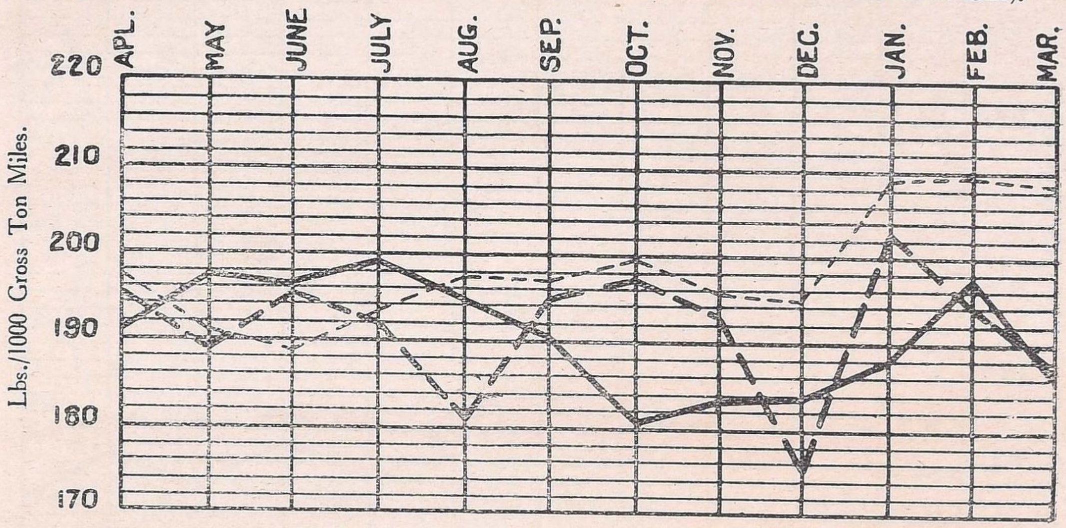
3'-3⅜" GAUGE.

1926-27 - - - - - - - -

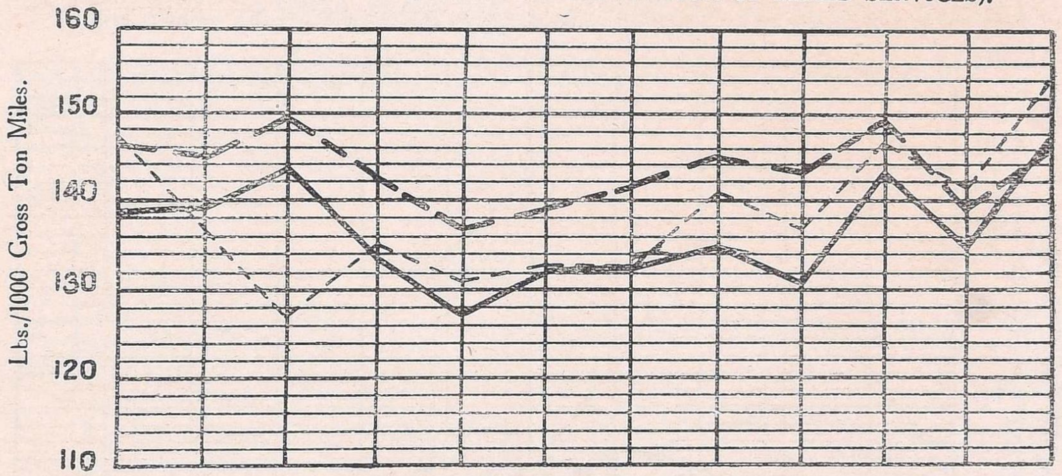
1930-31 — — — —

1931-32 ————

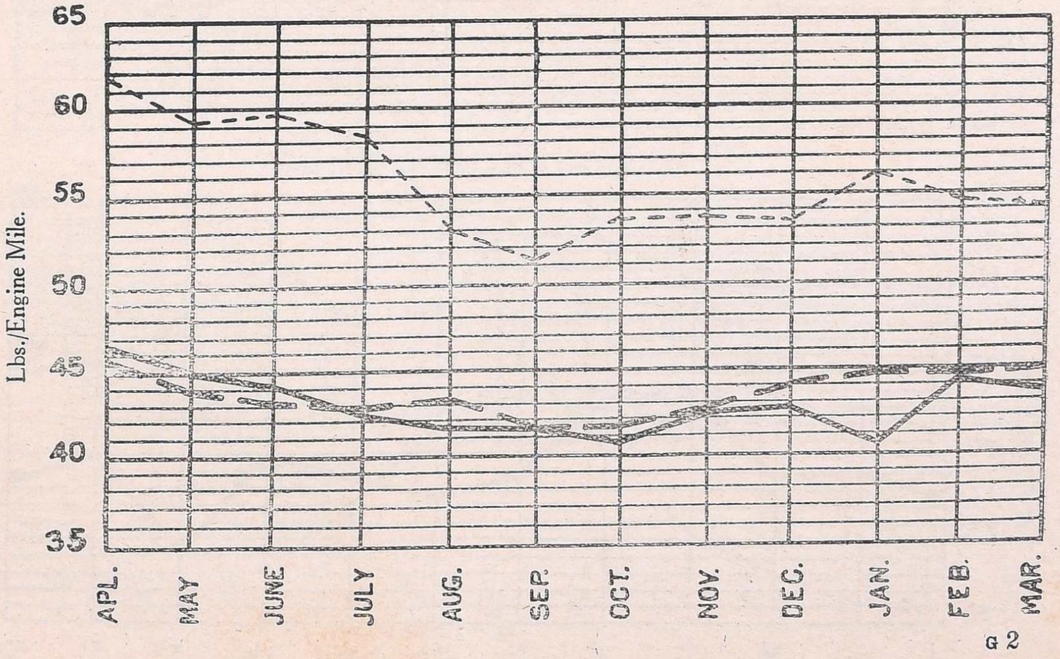
PASSENGER SERVICES (INCLUDING PROPORTION OF MIXED SERVICES).



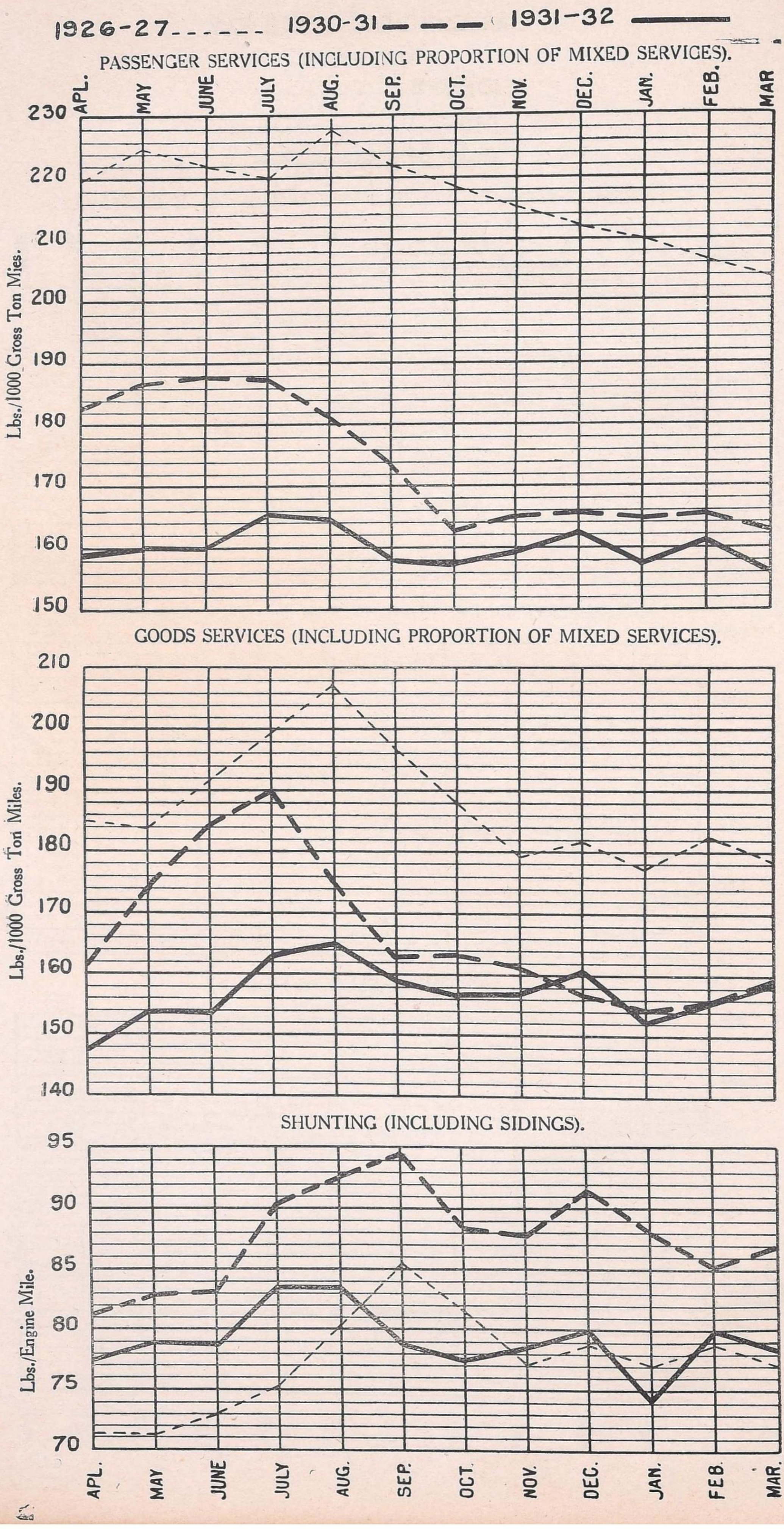
GOODS SERVICES (INCLUDING PROPORTION OF MIXED SERVICES).



SHUNTING (INCLUDING SIDINGS).



COAL CONSUMPTION.
GREAT INDIAN PENINSULA RAILWAY.
5'-6" GAUGE.



COAL CONSUMPTION.

NORTH WESTERN RAILWAY.

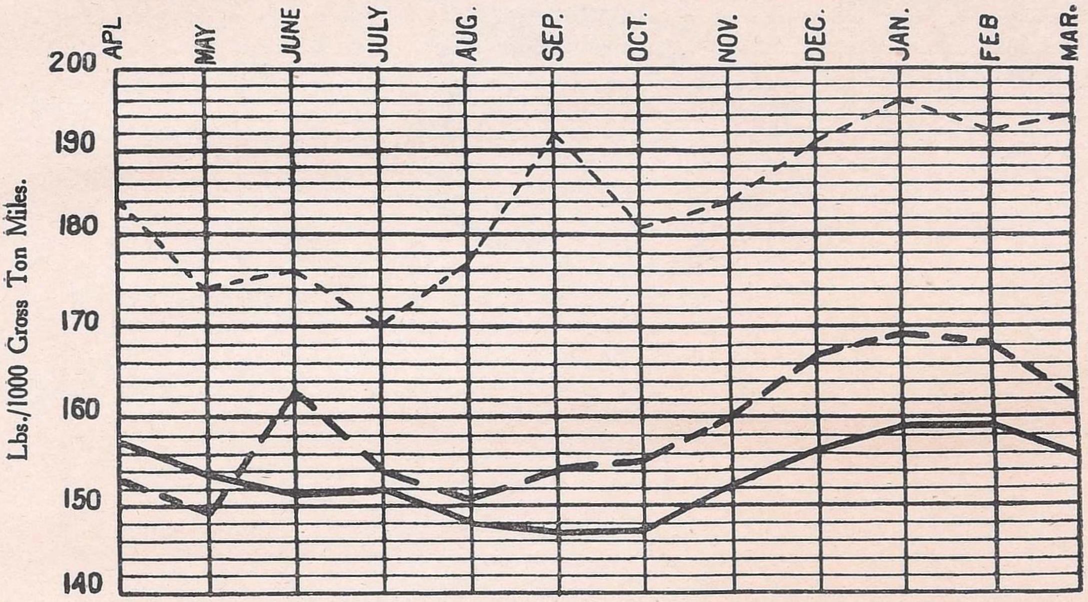
5′-6″ GAUGE.

1926-27 - - - - - -

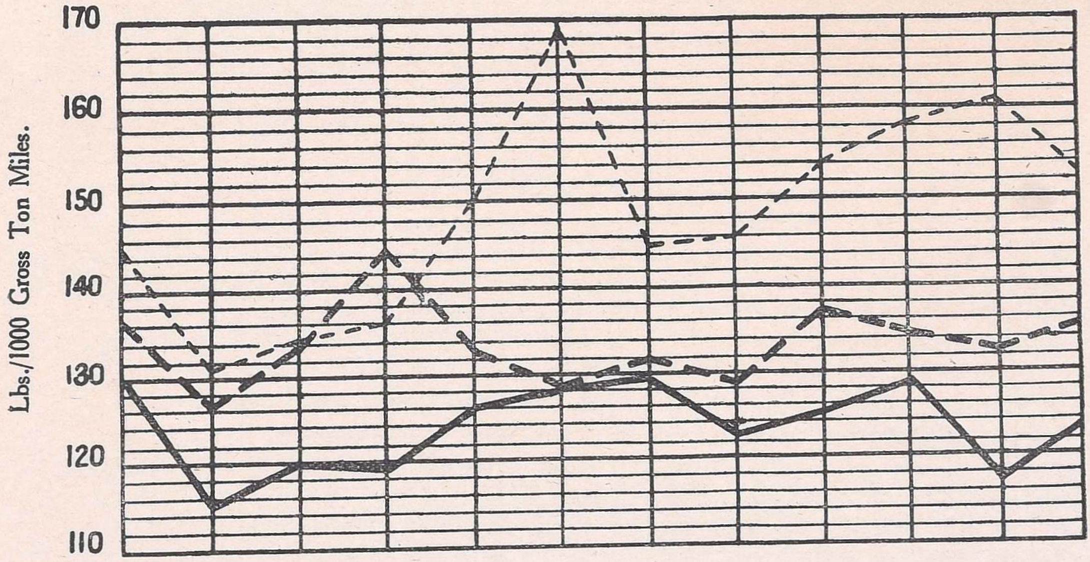
1930-31 — — — —

1931-32 ————

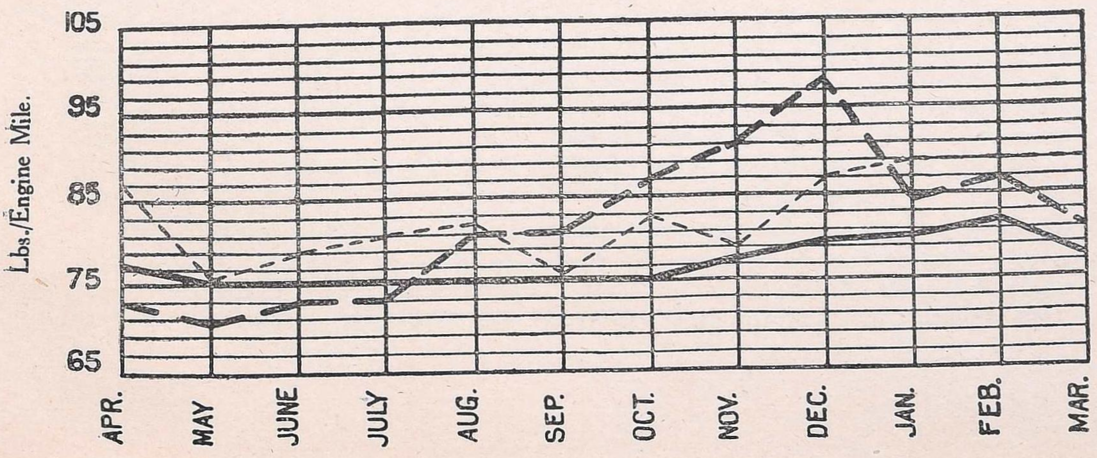
PASSENGER SERVICES (INCLUDING PROPORTION OF MIXED SERVICES).



GOODS SERVICES (INCLUDING PROPORTION OF MIXED SERVICES).



SHUNTING (INCLUDING SIDINGS).



run between Howrah and Peshawar, thus providing a through express service between Bengal and Punjab.

(*b*) Nos. 13 Up and 14 Down express trains running over the East Indian Railway main line were diverted to run *viâ* the Benares route to cater for the pilgrim traffic from Baidhyanath Dham.

(*c*) On the North Western Railway the Karachi Express between Lahore and Karachi was discontinued.

(*d*) Nos. 3 Up and 4 Down Frontier Mails running over the Bombay, Baroda and Central India and North Western Railways between Bombay (Central) and Peshawar *viâ* Karnal, were diverted to run *viâ* Meerut and Saharanpur.

(*e*) On His Exalted Highness the Nizam's State Railway, due to the falling off in traffic, the through train between Secunderabad and Mysore was discontinued, but through service carriage, *viz.*, 1st and 2nd, bogie 3rd class and a luggage van were provided instead.

48. System of Ticket Checking.—Mention was made in last year's report of the committee appointed to enquire into the crew system on the East Indian Railway and to report whether the expenditure on it was justified by the results. The recommendations of the Committee were considered during the year under review and a new system of checking tickets based on their recommendations were introduced on the East Indian Railway on the 1st June, 1931, as an experimental measure, in the first instance. Under the new system ticket collectors are posted at stations and it is their duty to prevent people without tickets from entering station platforms. There are also Travelling Ticket Examiners whose duty it is to detect, when in a train, persons who have succeeded in evading the Ticket Collectors or in getting on to a station platform without tickets. The main difference between the new system and the system of Travelling Ticket Inspectors previously in force is that under the old system the number of Travelling Ticket Inspectors was small and each Inspector was allowed, generally, to exercise his discretion as to the trains by which he should travel, with the result that on many trains there was no checking of tickets *en route*, whereas under the new system two men are deputed to travel by each train to check tickets *en route*.

The new system was reported to be working satisfactorily, and its adoption as a permanent measure on the East Indian Railway was reserved for decision after a little longer experience had been gained of its working. The Railway Board also had under consideration the question of introducing on the other State-managed Railways a system of ticket checking generally on the lines of that adopted on the East Indian Railway, with such modifications as the local conditions peculiar to each railway would render necessary.

49. Road Motor Competition.—In spite of the measures adopted by railways, some of which were mentioned in the last year's report, to combat the competition from road motor transport to which they have been subjected for some years, the competition has been steadily growing. It became more and more apparent during the year under review that the competition, which is detrimental to railway interests, and which often entails an unnecessary duplication of transport facilities would soon assume serious proportions if steps were not taken to control its growth. The whole matter is a complicated one involving the co-ordination of various conflicting interests and has been receiving the careful attention of the Government of India, who, towards the close of the year, were considering the appointment of a small technical committee to enquire into the extent of this competition in the various provinces of India, and to collect other relevant data, to enable the Government to formulate a policy for the future which would secure as far as possible a co-ordinated development of road and rail transport facilities.

50. Wagon position.—The general trade depression continued in an intensified form throughout the year with the result that the available wagon supply was at no time in full demand. Loading of coal on the Bengal Nagpur and East Indian Railways was however brisk during the period 15th

December, 1931 to the 14th January, 1932, but this was a purely temporary phase due mainly to advance despatches to avoid the 15 per cent. surcharge on freight for the carriage of coal, coke and patent fuel levied from the 15th January, 1932.

The total number of wagons loaded during the year recorded a fall of approximately 330,000, or a decrease of 8·27 per cent. as compared with the previous year. Coal despatches during the year under review were approximately 1,390,000 tons, *i.e.*, 7·49 per cent. less than in the previous year. On account of slack traffic, no difficulty was experienced at any time in meeting indents in full.

51. Neutral examination of interchanged wagon stock.—The system of neutral examination at Junctions of Interchanged wagons by staff working under the Director of Wagon Interchange continued at the following junctions :—

New Delhi.	Waltair.
Ghaziabad.	Khanalampura.
Ajni-Nagpur.	Chheoki.
Raichur.	*Agra Cantonment.

Repairs by neutral staff at Chheoki and Khanalampura was carried out for six months as an experimental measure as referred to in last year's report but the scheme was discontinued as it proved disadvantageous in practice.

52. Debits for damages and deficiencies.—The debits raised for damages and deficiencies on wagons interchanged at junctions under neutral control show an increase over the previous year's figures, which is chiefly due to the scale of charges for damaged body and floor plates having been enhanced. The figures are :—

	Number of wagons interchanged.	Debit per wagon. Rs. A. P.
1930-31	857,433	2 10 5
1931-32	744,856	4 12 2

Damaged wagons rejected at neutral junctions represented 1·4 per cent. of the total number of wagons interchanged as against 1·3 per cent. in the previous year.

The test of vacuum braked wagons at neutral junctions was continued during the year and the percentage of wagons penalised for inoperative cylinders to the total dealt with was 2·1 per cent. which shows an improvement over the figure of 5 per cent. during the previous year.

53. Railway Collieries.—The output from the principal railway owned collieries during 1931-32 compares with the previous year's output as follows :—

Colliery.	Owned by	Output (tons). 1930-31.	Output (tons). 1931-32.
Bokharo Ramgarh . . .	E. I. & B. N. . .	852,473	641,124
Sawang	E. I. & B. N. . .	101,471	61,221
Kurhurbaree and Serampore .	E. I. . . .	645,198	647,223
Bhurkunda	State . . .	119,382	153,796
Kargali . . .	State . . .	817,582	636,387
Argada	B. N. . . .	295,305	234,016
Jarangdih	B., B. & C. I. & M. & S. M. Railways.	95,401	111,124
	Total .	2,926,812	2,484,891

* With effect from 1st February, 1932, the examination of interchanged wagon stock at Jumna Bridge and Agra East Bank was centralised at Agra Cantonment.

State Railway Collieries.

Bhurkunda Colliery.—The development of the underground workings in the Upper Simana and Kurse Seams made good progress although mechanical coal-cutters were withdrawn from operation owing to restricted despatches. The electrification of the Upper Simana Seam was completed. The ventilation of both seams was improved by means of a fan and ventilation shafts. Plant was maintained in good condition and there was no labour trouble or sickness throughout the year under review.

Kargali Colliery.—The following works were completed during the year under review :—

Endless rope haulage, air shaft, compressor house, staff quarters, the electrification of the liquid oxygen plant and replacement of the weighbridge.

The working of the colliery was satisfactory.

The distribution of the output of these two collieries is given below :—

Colliery.	Seam.	Smithy.	Slack & Dust.	Rubble.	Total.
Kargali.	Tons.	Tons.	Tons.	Tons.	Tons.
Great Indian Peninsula Railway.	343,840	2,432	2,034	74	348,380
East Indian Railway . .	122,928	...	13,598	...	136,526
Eastern Bengal Railway .	146,123	...	...	...	146,123
North Western Railway .	...	...	890	...	890
Miscellaneous . . .	...	...	4,468	...	4,468
Total .	612,891	2,432	20,990	74	636,387
Bhurkunda.					
North Western Railway . .	79,150	...	1,059	...	80,209
East Indian Railway . .	45,878	...	258	...	46,136
Eastern Bengal Railway .	26,696	...	755	...	27,451
Total .	151,724	...	2,072	...	153,796

Tonnage of coal inspected by the State Railways' Coal Department.—The State Railways' Coal Department inspected 5,713,282 tons during 1931-32 as compared with 6,584,355 tons in 1930-31 and 6,360,264 tons in 1929-30.

East Indian and Bengal Nagpur Railways joint Sawang Colliery.—Good progress was made in driving out main galleries and forming panels. Conditions underground were greatly improved by the ventilating fan installed in November, 1931.

Hydraulic flushing of coal was installed in the rise galleries and has worked satisfactorily.

East Indian and Bengal Nagpur Railways joint Bokharo Colliery.—Development generally, and removal of overburden, has proceeded satisfactorily. No trouble was experienced from inundation of quarries from adjoining nullahs.

The cost of raising the coal shows a decrease of five annas per ton; Rs. 2-8-6 per ton for the financial year ending 31st March, 1932 as against Rs. 2-13-6 for the previous year.

Bombay, Baroda and Central India and Madras and Southern Mahratta joint Railways Jarangdih Colliery.—The development of this Colliery is almost complete.

The total output during the year under review was 108,420 tons as against 94,979 tons in the previous year.

Bombay, Baroda and Central India and Madras and Southern Mahratta joint Railways Religari Dari Colliery.—As stated in last year's report development of this property has been suspended.

Serampore Colliery.—Incipient fires still exist in some areas, and have to be carefully dealt with. Apart from this difficulty progress and development were satisfactory.

Kurharbaree Colliery.—In spite of difficult and dangerous working conditions in some areas, development was satisfactory.

There was a slight increase in the output of these two collieries and the cost of raising the coal shows a reduction from Rs. 4-6-1 per ton during the last year to Rs. 4-1-1 per ton during the year under review.

The outturn from the by-product plant was :—

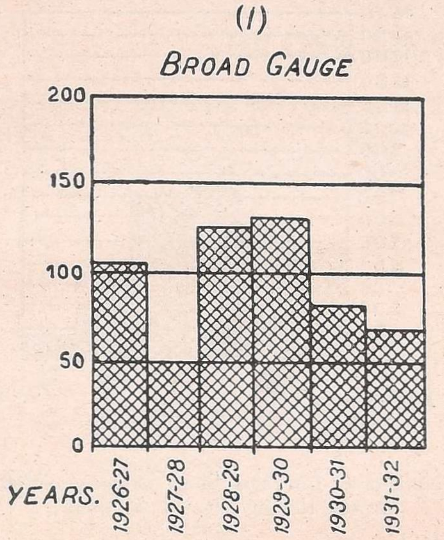
Coke	23,353 tons.
Tar	1,032 ,,
Sulphate of ammonia	266 ,,
Sulphuric acid	296 ,,
Benzol	36,053 gallons.

Bombay, Baroda and Central India Railway Kurasia Colliery.—The construction of the staff quarters, office, hospital, workshops and other buildings as well as the railway siding are well in hand; incline facings are being opened out, and arrangements are being made for the installation of haulage and other mechanical equipment.

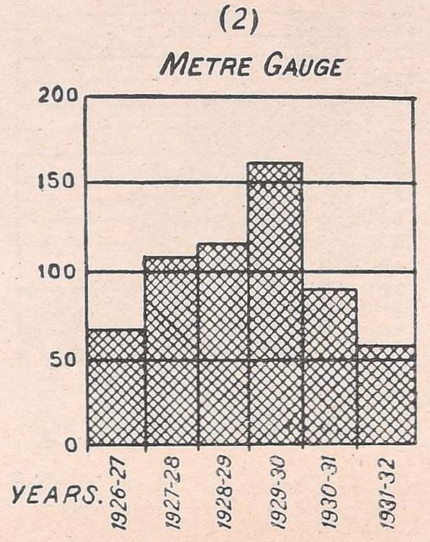
Madras and Southern Mahratta Railway Talcher Colliery.—The output during the year was 25,481 tons. This is expected to increase to 84,000 tons in 1932-33, and 144,000 tons the next year.

Coal mined in India.—In 1931 the coal mined in the various provinces of British India amounted to 20,514,597 tons as against 22,683,861 tons in 1930 or a decrease of 2,169,264 tons.

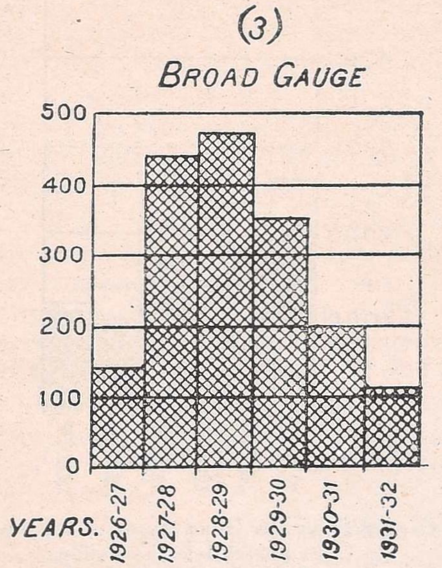
Shipment of coal from Calcutta.—Including Bunker coal shipments from the Port of Calcutta to Indian and Foreign Ports during 1931-32 amounted to 2,832,274 tons of which 534,510 tons were on account of Indian Railways and 164,403 tons for Ceylon Government Railways or a total of 698,913 tons as compared with 823,116 tons in 1930-31. The above represents shipment by sea-going vessels. At the Kidderpore Docks and Garden Reach Coal Berths 62,007 tons of coal were shipped by river boats and flats during the same period.



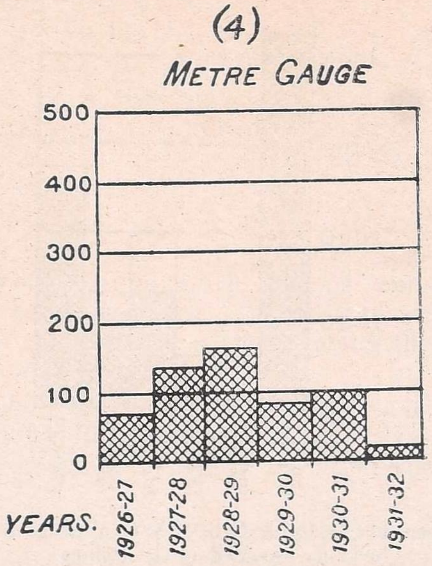
Number of Locomotives provided in the Rolling Stock Programme.



Number of Locomotives provided in the Rolling Stock Programme.



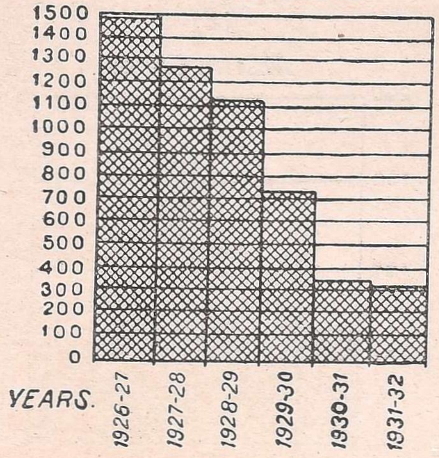
Number of Boilers provided in the Rolling Stock Programme.



Number of Boilers provided in the Rolling Stock Programme.

(5)

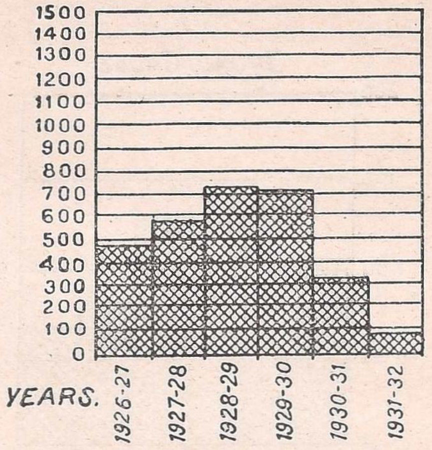
BROAD GAUGE



Number of Coaching Stock Units provided in the Rolling Stock Programme.

(6)

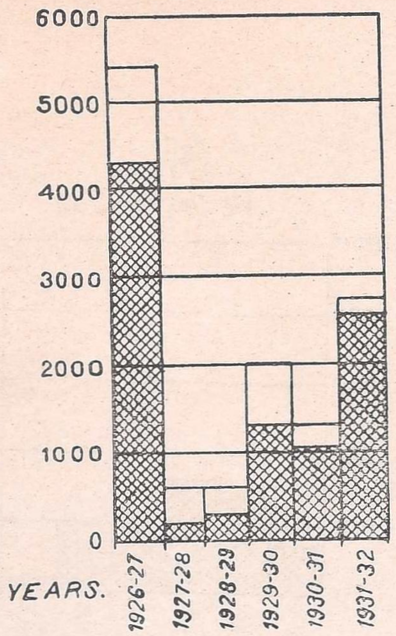
METRE GAUGE



Number of Coaching Stock Units provided in the Rolling Stock Programme.

(7)

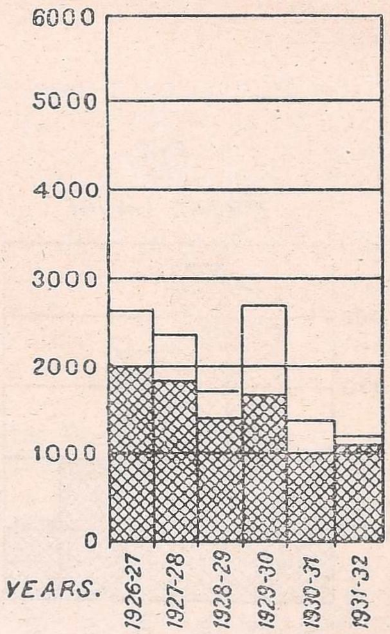
BROAD GAUGE



General Service & Other Types of Wagons in Units provided in the Rolling Stock Programme.

(8)

METRE GAUGE



General Service & Other Types of Wagons in Units provided in the Rolling Stock Programme.

General Service Wagons shown thus

Other Types shown thus

CHAPTER V.

ROLLING STOCK AND MATERIALS.

54. Additions to equipment.—During the year the following rolling stock (including arrears brought forward from previous years), was on order for broad and metre gauge railways respectively as follows :—

Item.	*Broad Gauge.*	*Metre Gauge.*
Locomotives	86	100
Coaching Stock	1,076	764
Goods Stock	*3,206	1,623

Those actually placed on the line by the end of the year were as follows :—

Item.	*Broad Gauge.*	*Metre Gauge.*
Locomotives	79	68
Coaching Stock	553	512
Goods Stock	2,672	1,323

55. The numbers of coaching and goods stock shown in the preceding paragraph are stated in terms of four-wheelers, a bogie being reckoned as two four-wheelers. These figures do not, however, represent the actual net additions to rolling stock as they include stock built in replacement of existing engines and vehicles which had reached the end of their useful life.

For instance, no broad and metre gauge locomotives were obtained as additions and the number of broad gauge locomotives at the end of the year was 47 less than at the beginning, due to 126 being scrapped during the year, of which only 79 were replaced. On the metre gauge, the number of locomotives at the end of the year was 14 less than at the beginning, 82 being scrapped during the year, 68 of which were replaced. The average tractive effort per engine rose in the course of the year from 24,424 lbs. to 24,848 lbs. on the broad gauge and from 14,260 lbs. to 14,574 lbs. on the metre gauge.

Coaching vehicles.—503 old type broad gauge carriages were replaced during the year by modern vehicles and 50 carriages were added to the stock. On the metre gauge, 434 carriages were replaced during the year by modern vehicles of higher capacity and 78 were added to the stock.

Wagons.—2,391 broad gauge wagons were replaced during the year and 281 broad gauge wagons were added to the stock. The total carrying capacity increased by 17,595 tons. On the metre gauge 1,579 wagons were scrapped during the year, 1,323 of them being replaced. There was an increase of 6,739 tons in tonnage capacity of metre gauge wagons during the year, in spite of a decrease of 256 in the number of vehicles.

56. The graphs on the opposite page show the total number of locomotives, boilers, carriages and wagons provided for in the programmes of Class I railways during the past six years. These figures include replacements and renewals.

57. Supply of rails and fish plates from indigenous sources.—During the year under review orders amounting to approximately 79,203 tons of rails and 3,037 tons of fish plates were placed with the Tata Iron and Steel Company. In this tonnage is included an order for the supply of 16,665 tons of 115 lbs. section rails for the East Indian and Eastern Bengal Railways.

58. Development of the use of indigenous timbers for carriage building.—The modifications made in the X-type Sturtevant seasoning kilns

* 350 of these were actually placed on the line in 1930-31 but were not included in the figures shown in the 1930-31 Report.

at Lillooah, East Indian Railway, have given satisfactory results. The amount of air circulating in the chambers has greatly increased and distribution is more uniform than before. During the year indigenous timber, seasoned in these kilns, was employed in nearly 300 coaches on the East Indian Railway, and many of these are now passing through shops for periodical overhaul after 12 months running and, in every case so far, the timber has been reported upon as satisfactory.

As construction programmes generally were curtailed, for the sake of economy, a higher percentage of the timber used was employed on repairs, which led to an increased use of cheaper indigenous timber. On the North Western Railway 77 per cent., and on the East Indian Railway 69 per cent., of the timber used was of various species other than teak.

The total amount spent on timber, other than sleepers, by Class I Railways (excluding His Exalted Highness the Nizam's State Railway and the Jodhpur Railway) during the year was Rs. 37·99 lakhs compared with Rs. 84·50 lakhs in 1930-31.

59. Wooden Sleeper Purchase Organisation.—The total purchases of wooden sleepers during the last two years were :—

	1930-31.	1931-32.
	(Lakhs of sleepers.)	
Broad Gauge	15·04	21·34
Metre Gauge	11·47	11·47
Narrow Gauge	1·31	1·30

The increase under broad gauge sleepers is due to construction requirements on the East Indian and North Western Railways, which amounted to about 4 lakhs of sleepers. That the demands for renewals were reduced to the minimum for the sake of economy is confirmed by the fact that purchases of wooden sleepers, for construction and renewals, during the quinquennium 1927-28 to 1931-32 averaged 21·89 broad gauge and 13·54 metre gauge. The total number of wooden sleepers in the line, on Class I Railways (excluding Burma) was on March 31st, 1932 :—

Broad Gauge	27,854,000
Metre Gauge	22,929,000

which, assuming an average life of 15 years, means an annual demand, for renewals only, of approximately 18½ lakhs broad gauge and 16 lakhs metre gauge sleepers.

The relative position of wooden sleepers in Class I Railways in India compared with other kinds of sleepers is shown by the following percentages, based on the total number of sleepers in the track :—

Class I—Indian Railways.	Wood.	Cast iron.	Steel.	Other kinds.
Broad Gauge—				
1928-29	45·8	38·7	15·1	0·4
1929-30	44·2	38·6	16·8	0·4
1930-31	43·9	38·6	17·1	0·4
Metre Gauge—				
1928-29	74·5	6·7	18·6	0·2
1929-30	73·3	6·5	20·0	0·2
1930-31	73·3	6·1	20·4	0·2

No wooden sleepers were imported from abroad, and no orders could be placed in Burma as the reduced requirements were available in India at lower prices. *Sal* sleepers from Nepal and from the Eastern Group area were obtained, respectively, at Rs. 7-4 and Rs. 6-12 for broad gauge, and Rs. 2-14 and Rs. 2-12 for metre gauge sizes.

In the Northern Group prices for timber fell generally and in January, 1932 negotiations were entered into to arrange for three-year contracts, to take effect after June 30th 1933, when the five-year contracts expire, as follows :—

Lakhs per annum.	Price.
	Rs. AS.
3·20 Deodar Broad Gauge Sleepers	4 12
1·00 Kail Broad Gauge Sleepers	3 8
1·70 Chir Broad Gauge Sleepers	3 2

These prices compare with the prices in the five-year contracts as follows :—

	Rs. AS.
Deodar	6 8
Chir	3 8
Fir	3 4

At Dhilwan on the North Western Railway the following soft wood sleepers were impregnated with a mixture of 40 per cent. creosote and 60 per cent. liquid fuel.

	Fir.	Chir.	Kail.
Number of Broad Gauge Sleepers	141,398	240,813	73,205
Average absorption	14·1 lbs.	14·8 lbs.	14·1 lbs.

The actual cost of treated sleepers, including all charges, was :—

	Rs. AS. P.
Treated chir	5 1 1
,, fir	4 9 10
,, kail	4 13 0

The treating plant at Naharkatya, Assam Bengal Railway, had an output of about 2 lakhs of treated sleepers which were divided equally between the Assam Bengal and Eastern Bengal Railways.

The total amount spent on wooden sleepers on Class I Railways (excluding His Exalted Highness the Nizam's State Railway and the Jodhpur Railway) was Rs. 1·59 crores compared with Rs. 1·75 crores in 1930-31.

No meeting of the Sleeper Pool Committee was held during the year as the annual meeting of Chief Engineers was cancelled.

60. Value of railway materials purchased.—The value of stores purchased by Class I Railways (excluding His Exalted Highness the Nizam's State and Jodhpur Railways, which are mainly the property of Indian States) decreased from Rs. 23·75 crores in 1930-31 to Rs. 15·99 crores in 1931-32 amounting in all to a decrease of Rs. 7·76 crores. Of this Rs. 4·93 crores were accounted for under " Imported Materials " and Rs. 2·83 crores under " indigenous materials ". This decrease is due to economies effected by railways and is accentuated by a general fall in market prices. The statement below shows the items under which purchases decreased, the noticeable items being—

	Rs. (in lakhs.)
Rolling stock	315
Tools and Stores	194
Permanent-way	37
Electric plant	53
Building and station materials and fencing and	28
Other materials	103

Under the indigenous materials the principal items of decrease were—

	Rs. (in lakhs.)
Rolling stock	40
Tools and Stores	80
Permanent-way and	46
Other materials	110

Heading.	Value of imported materials.			Value of indigenous materials.	Total purchases 1931-32.	Total purchases 1930-31.
	Purchased direct.	Purchased through Agents in India.	Total imported materials.			
	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.
Rolling-stock	1·90	0·82	2·72	0·57	**3·29**	6·44
Tools and stores	0·28	1·62	1·90	1·84	**3·74**	5·68
Permanent-way	0·05	0·23	0·28	3·40	**3·68**	4·05
Electric plant	0·11	0·70	0·81	0·06	**0·87**	1·40
Building and station materials and fencing	0·02	0·17	0·19	0·10	**0·29**	0·57
Bridge work	...	0·08	0·08	0·07	**0·15**	0·32
Workshop machinery	0·05	0·21	0·26	...	**0·26**	0·46
Engineer's plant	0·03	0·09	0·12	0·02	**0·14**	0·23
Other materials*	...	0·28	0·28	3·29	**3·57**	4·60
Total .	2·44	4·20	6·64	9·35	**15·99**	23·75

* Other materials consist of coal and coke, stone, bricks, lime and ballast, etc.

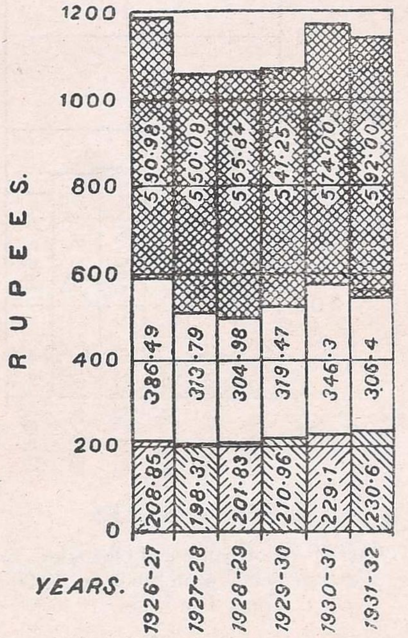
61. Purchase of Stores by Railways through the Indian Stores Department.—The total value of stores purchased by railways through the Indian Stores Department during the year amounted to Rs. 126·14 lakhs of which 16·92 lakhs represented the value of " textile and leather materials " and Rs. 109·22 lakhs that of " engineering, hardware and miscellaneous stores ". The list of items the purchase of which by State-managed Railways through the Indian Stores Department is obligatory was revised so as to remove certain ambiguities which had been brought to the Railway Board's notice and a number of articles including certain technical stores, such as standard bridge girders, locomotive boiler tubes, superheater flues, etc., were added to this list. The question of making further additions to the list is under consideration. The value of purchases made through the Indian Stores Department, however, dropped from Rs. 127·98 lakhs in 1930-31 to Rs. 126·14 lakhs in the current year. This decrease is chiefly due to the fall in market prices and to the efforts made by railways to reduce their purchases to the utmost possible limit consistent with efficiency in view of the existing financial stringency. A comparison of the total value of stores purchased by railways during recent years with the value of purchases made by them through the Indian Stores Department during the same period will show that there has been a considerable increase in the percentage of such purchases.

62. Dynamometer Car.—At the beginning of the year, the Great Indian Peninsula Railway received the new Dynamometer Car, which has

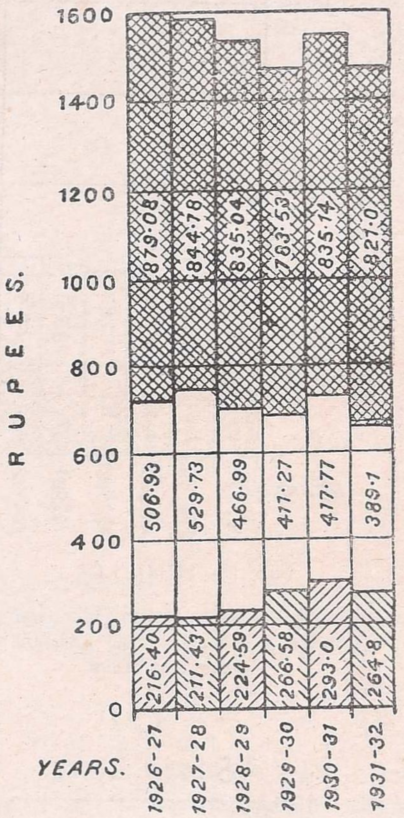
Running Repairs shown thus
Workshop Repairs shown thus
Operating Expenses shown thus

COST OF MAINTENANCE AND SUPPLY OF LOCOMOTIVE POWER PER 1,000 GROSS TON MILES.

(1)
BROAD GAUGE



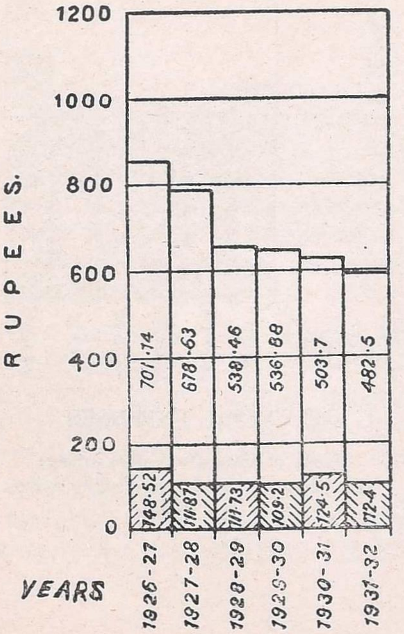
(2)
METRE GAUGE



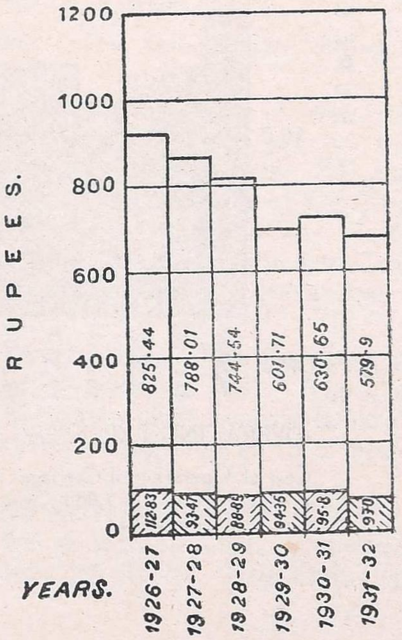
COACHING VEHICLES.

COST OF MAINTENANCE AND OPERATION OF CARRIAGE AND WAGON STOCK PER 1,000 GROSS TON MILES.

(3)
BROAD GAUGE



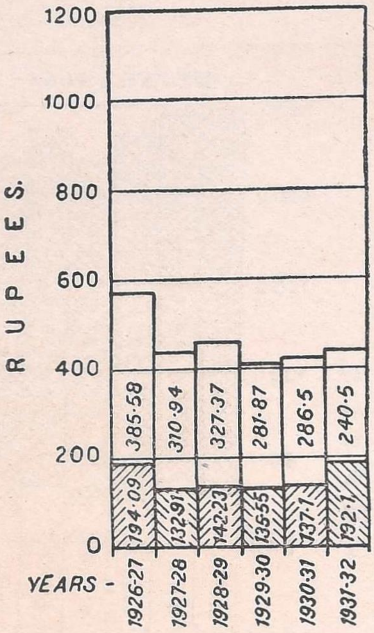
(4)
METRE GAUGE



Running Repairs shown thus
Workshop Repairs shown thus
Operating Expenses shown thus

(5)

BROAD GAUGE

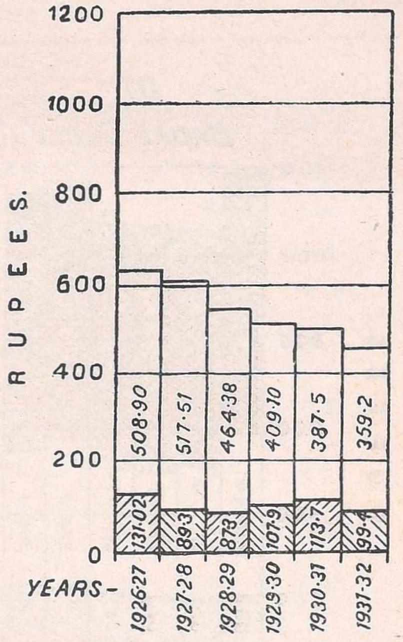


GOODS VEHICLES.

Cost of Maintenance and Operation of Carriage and Wagon Stock per 1,000 Gross Ton Miles.

(6)

METRE GAUGE

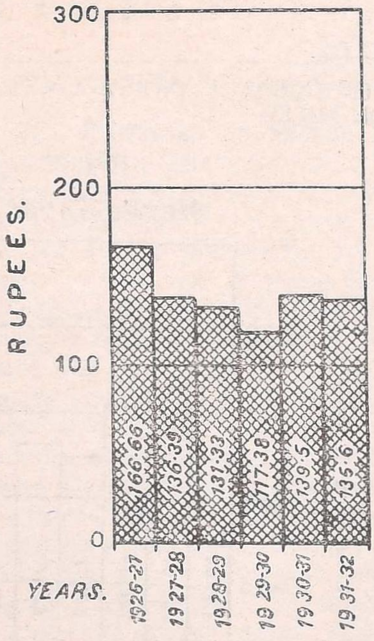


GOODS VEHICLES.

Cost of Maintenance and Operation of Carriage and Wagon Stock per 1,000 Gross Ton Miles.

(7)

BROAD GAUGE

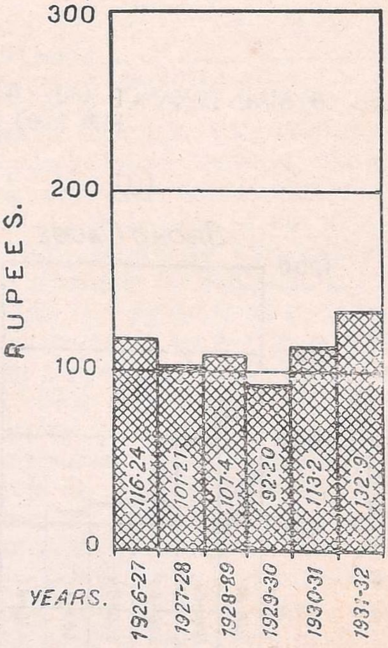


OPERATING EXPENSES.

Cost of Operation of Carriage and Wagon Stock per 1,000 Gross Ton Miles.

(8)

METRE GAUGE



OPERATING EXPENSES.

Cost of Operation of Carriage and Wagon Stock per 1,000 Gross Ton Miles.

been described in the technical press both in England and on the Continent, as the most complete dynamometer car in the world.

The Car has been used on trials to determine the economies possible from burning low grade Central Provinces coal in locomotives employed on certain sections of the Great Indian Peninsula Railway. It has also been used to carry out oscillation tests with various types of Indian Railway Standard engines, and has done useful work on comparative trials with XD and B. E. S. A. 2-8-0 class engines on that railway.

Towards the close of the year the dynamometer car was put to work on the North Western Railway and used for comparative trials with XS1 and XS2 class engines running on that system. These engines are fitted with the Caprotti and Lentz poppet valve Gears respectively and the data obtained from these trials will prove most useful for determining the economies in operation which can be expected from the introduction of these special types of valve gears.

63. Cost of maintenance and supply of locomotive power and cost of maintenance and operation of carriage and wagon stock.—The results obtained during the year under review and the five previous years in regard to the cost of maintenance and supply of locomotive power under the three major heads of accounts (running repairs, workshop repairs and operating expenses) and also of the cost of maintenance and operation of carriage and wagon stock, per 1,000 gross ton miles for both broad and metre gauges of the Class I Railways in India, are reproduced in graphic form.

64. Central Standards Office.—During the year under review, the Mechanical Drawing Branch of the Central Standards Office issued to railways complete sets of standard drawings of track tools and also of water columns and other hydraulic fittings. Standard drawings of signal and interlocking fittings were also issued and standard wagon part number drawings and standard detail drawings for coaching vehicle bodies were under preparation.

In the Structural Drawing Branch of the Central Standards Office, the drawings of metre gauge standard plate girder (square) spans were completed during 1931-32, and investigations and preliminary sketches showing the method to be adopted to convert these standard plate girder spans to skew spans, were in hand.

Designs for seven track layouts for Broad and Metre gauge with rails varying from 115 lb. section to 60 lb. section were completed, and preliminary designs for standard broad gauge steel sleepers for the above layouts were undertaken.

Standard designs of fish plates and fish bolts were revised and designs for standard dogspikes and bearing plates were prepared.

65. Locomotive Standards Committee.—The Locomotive Standards Committee met once in November, 1931.

In addition to dealing with further minor modifications in the design of standard locomotives necessitated by experience in the use of these locomotives in service; the Committee prepared designs for the ZF class, 2′ 6″ gauge locomotive for service on the Kalka Simla section of the North Western Railway. The Committee also drew up standards for electric headlight equipment. Further they recommended the Caprotti and Lentz R. C. Gears being fitted to standard engines as permissible alternatives to the existing valve gears.

66. Carriage and Wagon Standards Committee.—The Carriage and Wagon Standards Committee also met once in November, 1931. The Committee inspected a sample proposed standard upper class composite coach, built by the Great Indian Peninsula Railway and suggested certain modifications for incorporation in the design.

Standard specifications were prepared for electric fans and train lighting batteries, and suggestions were made for a suitable turbo generating equipment for the lighting of 2′ 6″ gauge passenger stock. This Committee

examined the preliminary design for steel coaching vehicles and designs for new steel parcel vans.

67. Bridge Standards Committee.—Two meetings were held during the year 1931-32, one in July, 1931 and another in March, 1932.

At the first of these meetings the question of bridge impacts was further considered and by an examination of existing records it was possible for the Committee to make recommendations resulting in substantial economies in the maintenance of existing short span bridges. These recommendations included the extension of the 25 per cent. overstress rule from spans limited to 40′ to spans limited to 80′; the inclusion of an impact factor depending on speed: an increase in rivet bearing values and a special concession in impact values when rail joints were removed from a span.

The question of revising the impact factor on new short spans was left over pending the collection of further data—but the position was advanced by a definite conclusion being reached that many of the records taken by stress recorders showed exaggerated impact effects and were therefore unreliable. Methods were devised to eliminate this exaggeration and it is anticipated that when the series of experiments then proposed is completed a sound case for a substantial reduction in impact allowances on short spans will emerge.

At this meeting also standard drawings for metre gauge standard spans of 60′ and under were examined and final recommendations made preparatory to their being issued as standards.

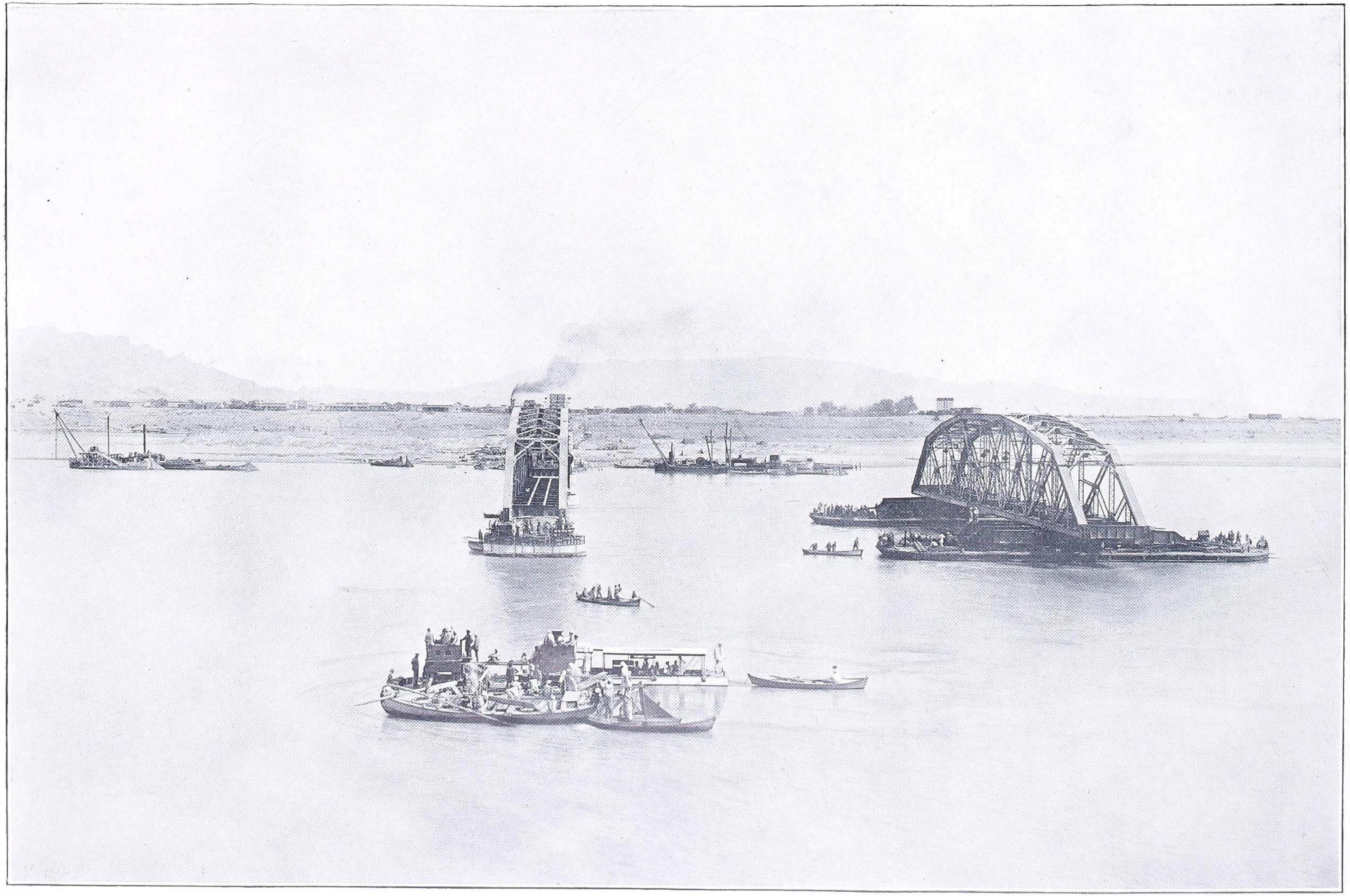
At the second meeting held in March, 1932 little further advance in respect of the impact question was made in the absence of new experimental evidence, but the Committee were able to recommend important advances as to working stresses both in truss and plant girders. These recommendations have an important bearing on the cost of new steel-work—the recommendations of the previous committee meeting having dealt chiefly with existing steelwork. At the same meeting permissible stresses in electric weld metal were advanced as a result of practical experiences obtained from work in India.

The question of Highway loads for road overbridges was thoroughly examined and tables and curves were prepared and circulated to other authorities interested. It is hoped in the near future to obtain general agreement to these proposals and to secure their adoption for trunk road bridges all over India.

68. Track Standards Committee.—The Track Standards Committee met twice during the year. At the first meeting in August, 1931 attention was directed towards methods of reducing the costs of production of standard track assemblies. While the standardised assemblies were designed for fast main line traffic it was decided that alternative cheaper assemblies should also be prepared for use on branch lines where axle loads were as great but speeds were lower. Certain other modifications in assembly parts were made including revised designs for fish plates whereby increases in strength amounting in some cases to 30 or 40 per cent. were obtained with little or no increase in weight.

The Committee met again in February, 1932 and examined the question of the design of a number of minor permanent-way parts. Cheaper types of fish bolts and slide chairs for over-riding switches were considered cheaper and more convenient types of M. S. bearing plates, to fit any rail down to a 40 lb. section were designed. Other questions examined included the behaviour in the track of chrome steel rails and over-riding switches and fractures of ordinary switch stock rails.

Designs of head-free fish plates were examined and proposals were made to experiment with this type on 90 lb. rails on a moderately large scale. The reports from Canada of improved running and long life obtained by the use of this type of plate hold out considerable promise for its success. Efforts



Kalabagh Bridge, Floating Span No. 6 in position.

to obtain a satisfactory type of welded rail joint were continued but weakness under the drop test still remains the main difficulty to be overcome.

A method was worked out and is now under consideration to simplify the employment of steel sleepers under track assemblies.

Data relating to the actual hammer blow produced by about 70 locomotives on various railways in India were collected and a revision of the existing practice of estimating track stresses on the basis of the heaviest static axle load was further examined.

CHAPTER VI.

STAFF.

69. Number of staff.—The total number of employees on all Indian Railways and in the office of the Railway Board and other offices subordinate thereto (excluding staff employed on construction) at the end of the year 1931-32 was 730,219 as compared with 781,859 at the end of 1930-31. The increase in route mileage during the same period was 533 miles. The following table shows the number of employees by communities on the 31st March 1931 and 1932. A similar statement showing details by railways is given as Appendix C of Volume II of the Report by the Railway Board on Indian Railways for 1931-32.

Date.	Europeans.	Indians.					Grand Total.
		Hindus.	Muslims.	Anglo-Indians and domiciled Europeans.	Other classes.	Total.	
31st March, 1931 .	4,773*	554,001*	172,975*	14,267*	35,843*	777,086*	781,859*
31st March, 1932 .	**4,516**	**519,819**	**157,714**	**13,544**	**34,626**	**725,703**	**730,219**

* The figures with asterisk represent revised figures due to minor corrections made in the figures published last year.

70. Cost of staff.—The following statement shows the number and cost of all staff, superior and subordinate (including labourers), permanent and temporary, open line and construction, employed on Class I Railways during the years 1930-31 and 1931-32. Contractors' labour is not included.

Railway Systems.	Year.	Number of staff on 31st March.						Cost of staff.		
		Open Line.			Construction.					
		Gazetted Officers.	Non-gazetted employees.	Total.	Gazetted Officers.	Non-gazetted employees.	Total.	Gazetted Officers.	Non-gazetted employees.	Total.
1	2	3	4	5	6	7	8	9	10	11
								Rs.	Rs.	Rs.
Assam Bengal .	1931	69	16,335	16,404	4	683	687	11,30,552	63,77,651	75,08,203
	1932	**70**	**16,088**	**16,158**	**1**	**47**	**48**	**10,66,563**	**60,87,143**	**71,53,706**
Bengal and North-Western.	1931	68	27,757*	27,825*	*Nil**	*Nil**	*Nil**	11,73,223*	67,43,554*	79,16,777*
	1932	**68**	**26,604**	**26,672**	*Nil*	*Nil*	*Nil*	**11,60,554**	**67,58,486**	**79,19,040**
Bengal Nagpur .	1931	210*	71,076*	71,286*	9	1,130	1,139	37,80,454	3,03,43,143	3,41,23,597
	1932	**210**	**68,927**	**69,137**	**2**	**2,198**	**2,200**	**38,21,862**	**2,98,89,783**	**3,37,11,645**
Bombay, Baroda and Central India.	1931	183	71,684	71,867	5	677	682	31,15,118	4,37,74,214	4,68,89,332
	1932	**171**	**66,893**	**67,064**	**2**	**349**	**351**	**29,96,292**	**4,00,12,016**	**4,30,08,308**

Note 1.—The figures with asterisk represent revised figures for 1930-31 due to changes made by the railway administrations in the figures published last year.

Note 2.—The figures of cost include the salaries and wages of staff, bonus contributions to the provident fund, gratuities, overtime allowances and all other allowances which are of the nature of extra pay and which are not granted to meet some definite expense incurred in the performance of duty, such as travelling allowance.

Railway Systems.	Year.	NUMBER OF STAFF ON 31st MARCH. Open Line. Gazetted Officers.	Open Line. Non-gazetted employees.	Open Line. Total.	Construction. Gazetted Officers.	Construction. Non-gazetted employees.	Construction. Total.	COST OF STAFF. Gazetted Officers.	Cost of Staff. Non-gazetted employees.	Cost of Staff. Total.
1	2	3	4	5	6	7	8	9	10	11
								Rs.	Rs.	Rs.
Burma . . .	1931	115	26,994*	27,109*	4	138	142	19,90,816	1,38,44,735	1,58,35,551
	1932	108	25,204	25,312	3	93	96	18,35,342	1,30,05,563	1,48,40,905
Eastern Bengal .	1931	129*	53,627	53,756*	5	1,312	1,317	23,68,566*	2,46,30,488*	2,69,99,054*
	1932	129	48,823	48,952	5	1,223	1,228	21,26,296	2,37,40,200	2,58,66,496
East Indian . .	1931	324	141,618	141,942	13	2,991	3,004	48,35,266*	6,35,76,830*	6,84,1,2096*
	1932	314	128,066	128,380	5	2,132	2,137	44,94,198	5,55,69,270	6,00,63,468
Great Indian Peninsula.	1931	228	96,115	96,343	2	58	60	46,61,766*	5,33,51,049*	5,80,12,815*
	1932	225	89,205	89,430	*Nil*	*Nil*	*Nil*	42,42,957	4,64,51,764	5,06,94,721
Jodhpur . .	1931	21	7,539	7,560	1	72	73	3,25,848	24,85,226	28,11,074
	1932	20	6,592	6,612	1	159	160	3,49,349	23,28,200	26,77,549
Madras and Southern Mahratta.	1931	147	52,808*	52,955*	3	2,271*	2,274*	25,70,787	2,41,44,676	2,67,15,463
	1932	147	50,950	51,097	3	2,404	2,407	25,24,615	2,26,07,607	2,51,32,222
Nizam's State .	1931	48	17,777	17,825	5	425	430	9,05,676	57,66,543	66,72,219
	1932	49	16,082	16,131	4	544	548	9,39,365	58,13,853	67,53,218
North Western .	1931	280*	116,193*	116,473*	26	3,979*	4,005*	43,50,000*	6,30,65,000*	6,74,15,000*
	1932	253	108,182	108,435	6	766	772	43,10,000	5,85,79,000	6,28,89,000
Rohilkund and Kumaon.	1931	16	6,130	6,146	*Nil*	*Nil*	*Nil*	2,12,926	15,12,163	17,25,089
	1932	15	5,754	5,769	*Nil*	*Nil*	*Nil*	2,51,475	15,87,938	18,39,413
South Indian .	1931	139*	39,149	39,288*	13	437	450	21,47,695	1,80,19,269	2,01,66,964
	1932	134	37,615	37,749	9	250	259	20,90,873	1,70,26,210	1,91,17,083
Total .	1931	1,977*	744,802*	746,779*	90*	14,173*	14,263*	3,35,68,693*	35,76,34,541*	39,12,03,234*
	1932	1,913	694,985	696,898	41	10,165	10,206	3,22,09,741	32,94,57,033	36,16,66,774

Note 1.—The figures with asterisk represent revised figures for 1930-31 due to changes made by the railway administrations in the figures published last year.

Note 2.—The figures of cost include the salaries and wages of staff, bonus contributions to the provident fund, gratuities, overtime allowances and all other allowances which are of the nature of extra pay and which are not granted to meet some definite expense incurred in the performance of duty, such as travelling allowance.

The above statement shows that the total number of staff on open line on 31st March 1932 was less by 49,881 than on 31st March 1931, while the total number of staff on construction was less by 4,057. The reduction in the total cost of staff during the year 1931-32 as compared with the preceding year was Rs. 295·36 lakhs.

71. Indianisation.—*State-managed Railways.*—The following table gives a summary of the permanent recruitment made for gazetted ranks in

the various departments on State-managed Railways during the year under review.

Department.		No. of vacancies which occurred in previous years not filled in those years remaining to be filled.	No. of new appointments created during the year.	No. of vacancies which occurred during the year.	No. of appointments abolished during the year.	No. of net vacancies to be filled.	No. of vacancies not filled up during the year.	No. of vacancies actually filled.	Filled by					
										Indians.				
									Europeans.	Hindus.	Muslims.	Anglo-Indians and Domiciled Europeans.	Other classes.	Total.
1		2	3	4	5	6 (a)	7 (a)	8	9	10	11	12	13	14
1. Agency		1	...	...	...	1	...	1 (b)	...	...	...	...	...	...
2. Accounts		...	...	3	...	3	2	1	1	...	...	...	...	...
3. Engineering . . .		2	...	9	56	...	...	5	1	2	...	2	...	4
4. Transportation (Traffic) and Commercial.		2	...	12	28	...	...	19	2	6	1	10	...	17
5. Transportation (Power) and Mechanical Engineering.		...	...	10	15	...	...	6	3	...	...	3	...	3
6. Stores Department . .		2	...	3	...	5	5	...	...	...	...	...	...	...
7. Other Departments . .		...	...	3	6	...	...	1	...	...	...	1	...	1
8. Total . . .	1931-32 .	7	...	40	105	...	...	33	7	8	1	16	...	25
	1930-31	25	1	41	...	67	7	60	12	20	5	19	4	48
9. Percentage of Europeans to number of vacancies filled.	1931-32	22·0												
	1930-31 .	20·0												
10. Percentage of Indians to number of vacancies filled.	1931-32	78·0												
	1930-31 .	80·0												

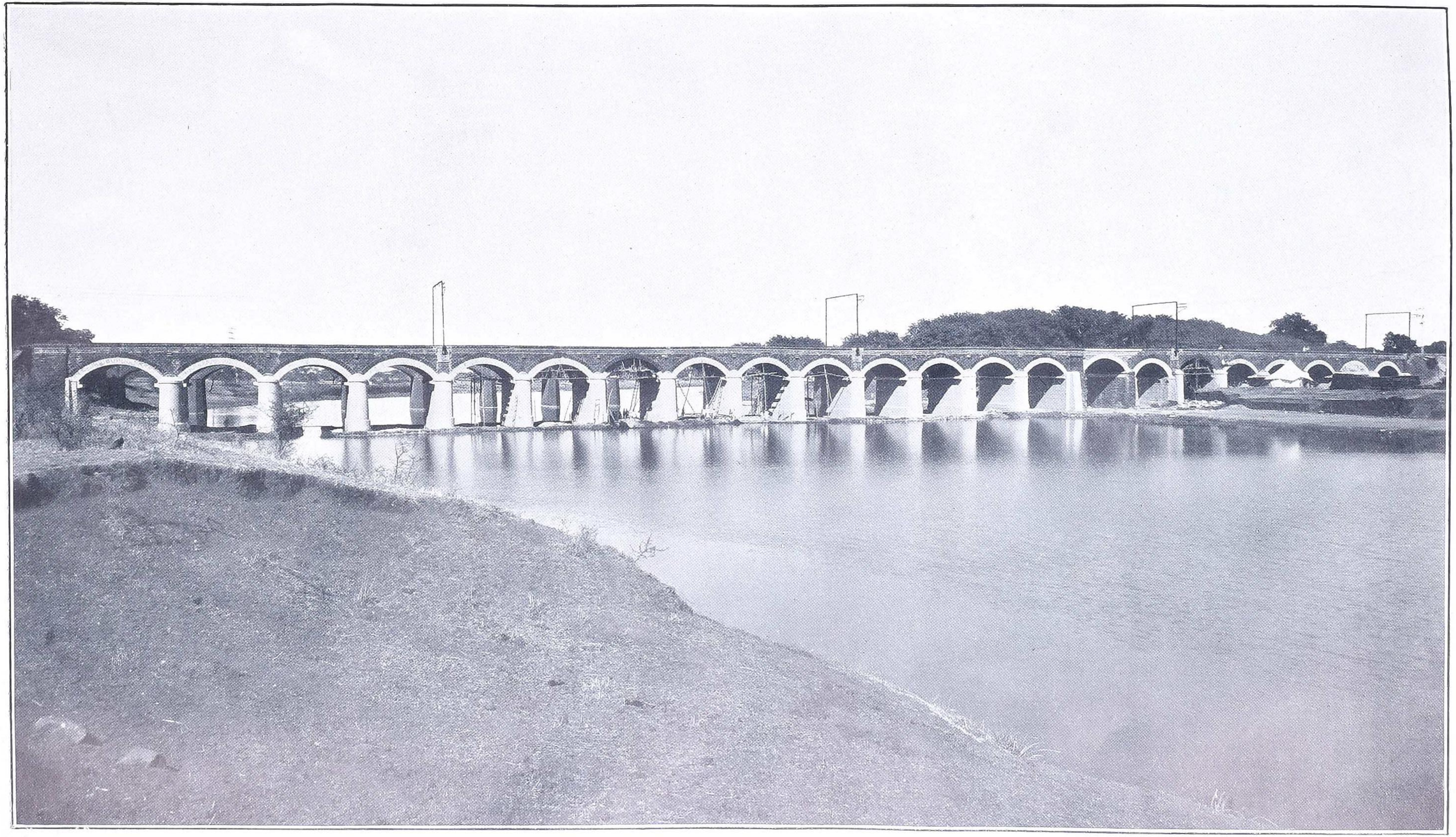
(*a*) See note 3. (*b*) See note 4.

Note 1.—It is usual to publish this statement in two parts, one showing the permanent vacancies, and the other the total vacancies, whether permanent or temporary, filled during the year. As during the year under report no temporary appointments were made, the statement is published in one part.

Note 2.—Since the primary object of this statement is to show the number of vacancies and how they were filled, an officer whose recruitment was arranged for during a particular year has been regarded as having been appointed during that year, even if he happened to join during the ensuing year.

Note 3.—The number of appointments abolished during the year (column 5) is largely due to the withdrawal of the provision made in March 1931 for deputations and for construction projects, surveys and open line programme works from the permanent cadres. As stated in the last report, credit had not been taken therein for the additions made to the cadres on this account from March 1931. Columns 6 and 7 are therefore left incomplete and for the same reason it is not possible to co-relate the figures in column 8 to those in the preceding columns.

Note 4.—Since the primary object of this statement is to show the number of new entrants into Gazetted services by race and community, the vacancy in the Agency Department which was filled by transfer of an existing officer from another Department is disregarded for the purpose of columns 9 to 14.



Dhapuri Bridge.

72. It will be noticed from the statement that during the year under review the total number of appointments made in the gazetted ranks on State-managed Railways was 32 of which 7 went to Europeans and 25 to Indians, of whom 8 were Hindus, 1 Muslim and 16 Anglo-Indians and domiciled Europeans. The ratio of Indian to European recruitment was 78 to 22. The percentage of Indian recruitment in the various departmets was :—

Department.	Per cent.
Accounts	...
Engineering	80·0
Transportation (Traffic) and Commercial	89·5
Transportation (Power) and Mechanical Engineering	50·0
Other Departments	100·0

Among Indian recruits the proportionate recruitment from each community was as shown below :—

	Per cent.
Hindus	32
Muslims	4
Anglo-Indians and domiciled Europeans	64
Other classes	...

The figures in the statement in para. 71 represent recruitment made for gazetted ranks. They exclude promotions from the Lower Gazetted Services to the Superior Services, but on the other hand include appointments made by promotion from the subordinate ranks to the Lower Gazetted Services. In order to work out the recruitment made for the Superior Services it would be necessary to include the former and exclude the latter and on this basis the total recruitment for the Superior Services comes to 20 made up as under :—

Europeans	7
Hindus	7
Muslims	1
Anglo-Indians and domiciled Europeans	5
Total	20

On the basis of these figures the ratio of Indian recruitment for the Superior Services amounts to 65 per cent. The European recruitment includes 3 temporary officers of the Transportation (Power) and Mechanical Engineering Departments recruited in 1927 and confirmed during the year under report. Omitting these, the recruitment to the Superior Services during the year would be 4 Europeans and 13 Indians representing 23·5 per cent. and 76·5 per cent. respectively. It is proposed to increase the ratio of Indian recruitment in subsequent years to make good the deficiency this year.

The above figures do not include the appointment of 6 apprentices, all of Asiatic domicile, recruited in India for the Transportation (Power) and Mechanical Engineering Departments during the year under review. The communities to which these apprentices belong are as follows :—

Hindus	4
Muslims	1
Anglo-Indians and domiciled Europeans	1

73. *Company-managed Railways.*—The following tables give a summary of the recruitment made for the superior services on Company-managed Railways during the year under review : Part I relates to permanent appointments and Part II includes both permanent and temporary appointments. A detailed statement by individual railways will be found in Appendix G of this report.

PART I.

Statement showing the number of ***permanent*** *vacancies filled in the Superior establishments on (Class I) Company-managed Railways, excluding His Exalted Highness the Nizam's State and Jodhpur Railways during 1931-32.*

Department.	No. of vacancies which occurred in previous years not filled in those years remaining to be filled.	No. of new appointments created during the year.	No. of vacancies which occurred during the year.	No. of appointments abolished during the year.	No. of net vacancies to be filled.	No. of vacancies not filled up during the year.	No. of vacancies actually filled.	Filled by: Europeans.	Filled by: Indians: Hindus.	Filled by: Indians: Muslims.	Filled by: Indians: Anglo-Indians and domiciled Europeans.	Filled by: Indians: Other classes.	Filled by: Indians: Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Agency	1	...	2	...	3	2	1	...	...	...	1	...	1
2. Accounts	3	1	6	1	9	1	8	2	3	...	3	...	6
3. Engineering	14	2	12	7	21	16	5	3	2	..	...	...	2
4. Transportation (Traffic) and Commercial.	11	...	9	2	18	8	10	3	4	...	3	...	7
5. Mechanical	6	...	13	4	15	9	6	4	1	1	...	...	2
6. Stores Department	4	...	4	2	4	3	1	1	...	...	...	...	...
7. Other Departments	1	...	10	..	13	5	8	6	1	..	...	1	2
8. Total 1931-32	40	3	56	16	83	44	39	19	11	1	7	1	20
8. Total 1930-31	25	39	48	4	108	(a)36	72	32	30	6	1	3	40
9. Percentage of Europeans to number of vacancies filled. 1931-32	48·7												
9. Percentage of Europeans to number of vacancies filled. 1930-31	44·4												
10. Percentage of Indians to number of vacancies filled. 1931-32	51·3												
10. Percentage of Indians to number of vacancies filled. 1930-31	55·6												

PART II.

Statement showing the ***total*** *number of vacancies filled in the Superior establishments on (Class I) Company-managed Railways, excluding His Exalted Highness the Nizam's State and Jodhpur Railways during 1931-32.*

Department.	No. of vacancies which occurred in previous year not filled in those years remaining to be filled.	No. of new appointments created during the year.	No. of vacancies which occurred during the year.	No. of appointments abolished during the year.	No. of net vacancies to be filled.	No. of vacancies not filled up during the year.	No. of vacancies actually filled.	Filled by: Europeans.	Filled by: Indians: Hindus.	Filled by: Indians: Muslims.	Filled by: Indians: Anglo-Indians and domiciled Europeans.	Filled by: Indians: Other classes.	Filled by: Indians: Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Agency	1	1	2	...	4	2	2	...	...	...	2	...	2
2. Accounts	3	1	6	2	8	1	7	2	3	...	2	...	5
3. Engineering	17	5	17	27	12	20	—8	—4	—1	—2	...	—1	—4(b)
4. Transportation (Traffic) and Commercial.	10	...	10	3	17	9	8	3	3	...	2	...	5
5. Mechanical	6	...	13	4	15	9	6	4	1	1	...	...	2
6. Stores Department	3	...	4	2	5	4	1	1	...	...	...	...	...
7. Other Departments	4	...	10	...	14	6	8	6	1	...	...	1	2
8. Total 1931-32	44	7	62	38	75	51	24	12	7	—1	6	...	12
8. Total 1930-31	39	46	55	35	105	(c)40	65	25	27	5	5	3	40
9. Percentage of Europeans to number of vacancies filled. 1931-32	50·0												
9. Percentage of Europeans to number of vacancies filled. 1930-31	38·5												
10. Percentage of Indians to number of vacancies filled. 1931-32	50·0												
10. Percentage of Indians to number of vacancies filled. 1930-31	61·5												

(a) Figures have been revised from 36 to 40 during 1931-32.
(b) The negative figures are due to the large number of temporary engineers' posts abolished during the year. Actually 6 officers were recruited in the Engineering department, of whom 3 were Europeans and 3 Hindus.
(c) Figures have been revised from 40 to 44 during 1931-32.

74. It will be observed from Statement Part I that during the year under review the total number of appointments made in the superior service on Company-managed Railways was 39 of which 19 went to Europeans and 20 to Indians, of whom 11 were Hindus, 7 Anglo-Indians and domiciled Europeans, 1 Muslim and 1 of other communities. As, however, a number of posts were abolished during the year, the net total number of vacancies filled, permanent or temporary, was 24 of which 12 went to Europeans. The total actual appointments filled by Indians were 14, of which 7 were Hindus, 1 Muslim and 6 Anglo-Indians and domiciled Europeans. Against these must be set two appointments which were abolished and which were held by Muslims. The ratio of Indian to European recruitment was 51·3 to 48·7 in respect of permanent appointment and 50·0 to 50·0 in respect of all appointments, whether permanent or temporary. The percentage of Indian recruitment in the principal departments was :—

	Permanent appointments.	Total appointments, permanent or temporary.
	Per cent.	Per cent.
Accounts	75·0	71·4
Engineering	40·0	...
Transportation (Traffic) and Commercial	70·0	62·5
Transportation (Power) and Mechanical Engineering	33·3	33·3

Among Indian recruits the proportionate recruitment from each community was as shown below :—

	Permanent vacancies.	Total vacancies.
	Per cent.	Per cent.
Hindus	55	58·3
Muslims	5	...
Anglo-Indians and domiciled Europeans	35	50·0
Other classes	5	...

75. *Review of the progress made since 1925.*—The following statements will throw further light on the progress made in Indianisation and in the recruitment of the various communities both on State-managed and Company-managed Railways since 1925, as reflected in the relative strength of Europeans and Indians belonging to the various communities : Part I relates to superior staff and Part II to subordinate staff on scales of pay rising to Rs. 250 and over.

PART I.

Statement of gazetted officers on State-managed Railways and Officers of corresponding rank on Company-managed (Class I) Railways (excluding H. E. H. the Nizam's State and Jodhpur Railways) on the 1st April 1925, 1st April 1931 and 1st April 1932.

Name of the Railway.	1st April 1925.							1st April 1931.							1st April 1932.						
	Euro-peans.	Indians.					Total number on the Railway (columns 2 *plus* 7).	Euro-peans.	Indians.					Total number on the Railway (colums 9 *plus* 14).	Euro-peans.	Indians.					Total number on the Railway (columns 16 *plus* 21).
		Hindus.	Muslims.	*Anglo-Indians.	* Other classes.	Total.			Hindus.	Muslims.	Anglo-Indians and domiciled Europeans.	Other classes.	Total.			Hindus.	Muslims.	Anglo-Indians and domiciled Europeans.	Other classes.	Total.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
State-managed Railways.																					
Burma	90	3	..	..	12	15	105	96	5	1	10	7	23	119	90	4	1	9	7	21	111
Eastern Bengal	79	31	3	..	12	46	125	77	36	7	11	3	57	134	70	47	6	7	4	64	134
East Indian	227	49	12	..	26	87	314	194	77	15	35	7	134	328	188	78	11	37	5	131	319
Great Indian Peninsula	175	18	5	..	23	46	221	179	26	8	8	9	51	230	165	30	10	12	8	60	225
North Western	192	60	13	..	28	101	293	§158	§92	21	16	§14	§143	§301	149	67	20	11	12	110	259
Railway Board and Miscellaneous Offices	59	8	3	..	14	25	84	54	14	4	15	2	35	89	48	15	4	10	1	30	78
TOTAL	822	169	36	..	115	320	1,142	§758	§250	§56	95	§42	§443	§1,201	710	241	52	86	37	416	1,126
Company-managed Railways.																					
Assam Bengal	52	6	1	..	2	9	61	43	16	4	9	1	30	73	41	16	4	9	1	30	71
Bengal Nagpur	170	27	5	..	19	51	221	§148	42	7	16	5	70	§218	137	43	8	15	4	70	207
Bengal and North-Western	55	3	1	..	..	4	59	59	5	3	2	..	10	69	58	6	3	1	..	10	68
Bombay, Baroda and Central India	159	14	..	..	21	35	194	135	30	2	5	13	50	185	125	29	2	3	14	48	173
Madras and Southern Mahratta	122	15	1	..	6	22	144	107	32	..	6	5	43	150	106	31	..	8	5	44	150
Rohilkund and Kumaon	12	1	..	..	..	1	13	12	2	2	..	..	4	16	11	2	2	..	..	4	15
South Indian	93	17	1	..	3	21	114	§85	52	3	10	2	67	§152	82	45	2	8	2	57	139
TOTAL	663	83	9	..	51	143	806	589	179	21	48	26	274	§863	560	172	21	44	26	263	823
GRAND TOTAL	1,485	252	45	..	166	463	1,948	1,347	429	77	143	68	717	2,064	1,270	413	73	130	63	679	1,949

Statement showing the percentages of the relative strength of Europeans and Indians of various communities.

			1925	§ 1931	1932
Europeans		State-managed Railways.	71·98	63·13	**62·17**
		Company-managed Railways.	82·26	68·25	**68·04**
		TOTAL	76·23	65·26	**65·20**
Indians	Hindus	State-managed Railways.	14·80	20·81	**21·40**
		Company-managed Railways.	10·30	20·74	**20·90**
		TOTAL	12·94	20·80	**21·20**
	Muslims	State-managed Railways.	3·15	4·66	**4·62**
		Company-managed Railways.	1·12	2·43	**2·55**
		TOTAL	2·31	3·73	**3·75**
Indians—*concld.*	Anglo-Indians and domiciled Europeans.	State-managed Railways.	*	7·91	**7·64**
		Company-managed Railways.	*	5·56	**5·35**
		TOTAL	*	6·93	**6·67**
	Other classes	State-managed Railways.	*10·07	3·49	**3·29**
		Company-managed Railways.	*6·32	3·01	**3·16**
		TOTAL	*8·52	3·30	**3·23**
	TOTAL	State-managed Railways.	28·02	36·90	**36·94**
		Company-managed Railways.	17·74	31·74	**31·96**
		TOTAL	23·77	35·22	**34·84**

* Anglo-Indians included in other classes in 1925. § Revised figures.

PART II.

Statement of subordinates on scales of pay rising to Rs. 250 per mensem and over on Class I Railways (excluding H. E. H. the Nizam's State and Jodhpur Railways) on the 1st April 1925, 1st April 1931 and 1st April 1932.

Name of the Railway.	1st April 1925.							1st April 1931.							1st April 1932.						
		Indians.							Indians.							Indians.					
	Europeans.	Hindus.	Muslims.	†Anglo-Indians.	†Other Classes.	Total.	Total number on the Railway (columns 2 plus 7).	Europeans.	Hindus.	Muslims.	Anglo-Indians and domiciled Europeans.	Other Classes.	Total.	Total number on the Railway (columns 9 plus 14).	Europeans.	Hindus.	Muslims.	Anglo-Indians and domiciled Europeans.	Other Classes.	Total.	Total number on the Railway (columns 16 plus 21).
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
State-managed Railways.																					
Burma	28	83	9	..	198	290	318	25	§102	10	§263	§66	§441	§466	27	92	11	246	64	413	440
Eastern Bengal	143	106	5	..	163	274	417	104	§182	15	179	§10	386	490	78	160	12	176	9	357	435
East Indian	859	300	25	..	789	1,114	1,973	602	494	50	921	21	1,486	2,088	570	469	46	931	19	1,465	2,035
Great Indian Peninsula	286	125	29	..	803	957	1,243	309	232	40	737	185	1,194	1,503	300	233	35	674	184	1,126	1,426
North Western	401	328	123	..	378	829	1,230	§404	§350	§182	351	§146	§1,029	§1,433	343	304	190	345	166	1,005	1,348
Railway Board and miscellaneous offices	*	*	*	*	*	*	*	4	145	22	27	21	215	219	2	113	18	28	15	174	176
TOTAL	1,717	942	191	..	2,331	3,464	5,181	§1,448	§1,505	§319	§2,478	§449	§4,751	§6,199	1,320	1,371	312	2,400	457	4,540	5,860
Company-managed Railways.																					
Assam Bengal	22	23	4	..	46	73	95	20	31	3	34	8	76	96	17	32	3	35	6	76	93
Bengal Nagpur	333	140	13	..	403	556	889	237	188	16	434	23	661	898	237	196	15	403	22	636	873
Bengal and North-Western	31	15	2	..	59	76	107	28	15	7	67	1	90	118	18	18	6	66	1	91	109
Bombay, Baroda and Central India	155	253	25	..	506	784	939	134	310	36	393	187	926	1,060	131	305	33	369	168	875	1,006
Madras and Southern Mahratta	85	31	1	..	173	205	290	89	49	..	190	12	251	340	83	47	..	180	9	236	319
Rohilkund and Kumaon	6	5	1	..	13	19	25	6	3	1	13	1	18	24	7	3	1	10	1	15	22
South Indian	63	73	2	..	158	233	296	§45	94	4	§170	8	§276	321	42	87	5	166	9	267	309
TOTAL	695	540	48	..	1,358	1,946	2,641	§559	690	67	§1,301	240	§2,298	2,857	535	688	63	1,229	216	2,196	2,731
GRAND TOTAL	2,412	1,482	239	..	3,689	5,410	7,822	2,007	2,195	386	3,779	689	7,049	9,056	1,855	2,059	375	3,629	673	6,736	8,591

Statement showing the percentages of the relative strength of Europeans and Indians of various communities.

			1925.	§ 1931.	1932.
Europeans		State-managed Railways.	33·14	23·36	**22·53**
		Company-managed Railways.	26·32	19·57	**19·59**
		TOTAL	30·84	22·16	**21·60**
Indians	Hindus	State-managed Railways.	18·18	24·28	**23·40**
		Company-managed Railways.	20·44	24·15	**25·20**
		TOTAL	18·95	24·24	**23·97**
	Muslims	State-managed Railways.	3·69	5·15	**5·32**
		Company-managed Railways.	1·82	2·35	**2·31**
		TOTAL	3·05	4·26	**4·36**
Indians—*contd*	Anglo-Indians and domiciled Europeans.	State-managed Railways.	†	40·13	**40·95**
		Company-managed Railways.	†	45·54	**45·00**
		TOTAL	†	41·73	**42·24**
	Other classes	State-managed Railways.	†44·99	7·24	**7·80**
		Company-managed Railways.	†51·42	8·40	**7·91**
		TOTAL	†47·16	7·61	**7·84**
	Total	State-managed Railways.	66·86	76·64	**77·47**
		Company-managed Railways.	73·68	80·43	**80·41**
		TOTAL	69·16	77·84	**78·41**

* Not available. † Anglo-Indians included in "Other classes" in 1925. § Revised figures.

76. It will be observed that the Indian element in the superior services has risen from 28·02 per cent. on State-managed and 17·74 per cent. on Company-managed Railways in 1925 to 36·94 per cent. on State-managed and 31·96 per cent. on Company-managed Railways in 1932 by a corresponding reduction in the European element. Among the Indians the percentage increase by communities in 1932 as compared with 1925 is shown below :—

——	State-managed.		Company-managed.	
	Percentages.		Percentages.	
	1925.	1932.	1925.	1932.
Hindus	14·80	21·40	10·30	20·90
Muslims	3·15	4·62	1·12	2·55
Anglo-Indians and others . . .	10·07	10·93	6·32	8·51

77. Turning to the subordinate staff the corresponding figures are as under :—

——	State-managed.		Company-managed.	
	Percentages.		Percentages.	
	1925.	1932.	1925.	1932.
Europeans	33·14	22·53	26·32	19·59
Indians :—				
Hindus	18·18	23·40	20·44	25·19
Muslims	3·69	5·32	1·82	2·31
Anglo-Indians and others . .	44·99	48·75	51·42	52·91
Total Indians .	66·86	77·47	73·68	80·41

78. Representation of Minority Communities in Railway Services.—This is one of the most difficult problems which the Government of India and the Railway Board have had to deal with from time to time. It has formed the subject of representations to Government and has accounted for a large share of the debates in the Legislative Assembly during the voting on the demands in the annual railway budgets. A comprehensive memorandum on the subject of Muslim representation in the Railway services was prepared by the Railway Board in February 1931 copies of which were circulated to the members of a Muslim deputation which waited on the Hon'ble Sir George Rainy on the 15th of that month. At this meeting and in the course of the debate on the railway budget for the year 1931-32 certain undertakings were given on behalf of Government and in pursuance of one of these, an officer was placed on special duty with the Railway Board in March 1931 with the following terms of reference :—

" (*a*) To visit the Headquarters of Railway Administrations and also places on the State-managed Railways and offices under the Railway Board and Financial Commissioner of Railways where recruitment or promotion of non-gazetted employees is made

and to observe the manner in which these matters are conducted and also the practical application of the rules relating to the training of the subordinate staff.

(*b*) To advise and assist the Agents and other controlling authorities in the introduction of such arrangements as may be necessary to secure the fullest compliance with the policy of Government regarding the adequate representation of Muslims and other minority communities in the various classes of non-gazetted establishment, and

(*c*) to report on these matters to the Railway Board.''

This officer with the assistance of a junior officer made a detailed investigation and in February 1932 submitted a report on the representation of Muslims and other minority communities in the Subordinate Railway Services on the North Western, Eastern Bengal, East Indian and Great Indian Peninsula Railways. Copies of this report were circulated to the Members of the Central Legislature and the statistics marshalled therein attracted animated interest during the debate in the Legislative Assembly on the Railway Budget for the year 1932-33.

The Railway Board have submitted proposals on the recommendations made in the report to the Government of India whose decision is expected shortly. The report was followed three months later by a supplementary report on the representation of Muslims and other minority communities in the workshop establishment on the State-managed Railways in India and the recommendations contained in this report will be considered after the receipt of the Government of India's orders on the main report. In the meantime the new rules for the recruitment of the subordinate staff which were issued during this year and to which we shall soon have occasion to refer make definite provision for the reservation of one-third of the vacancies in each class for the redress of marked communal inequalities and prescribe a specific procedure designed to ensure that the interests of communities inadequately represented in the services are effectively safeguarded at each stage in the process of recruitment.

It is unfortunate that the issue of the new rules of recruitment and the appointment of the officers on special duty synchronized with a campaign of intensive retrenchment on railways necessitated by the serious decline in traffic and other operations of railways. It has not been possible, therefore, to make any tangible progress in securing a fuller representation of communities at present inadequately represented in the service but care has been taken to ensure that all practical steps are taken to see that the unfortunate necessity for reducing staff does not operate to the detriment of such communities.

79. Re-organization of Gazetted Cadres of State-managed Railways.—In our last report we referred to the scheme for the re-organization of the cadres of gazetted services on State-managed Railways involving *inter alia* the institution of a separate cadre for each railway, the provision of a reserve for leave and deputations and for construction projects, surveys and open line programme works, the abolition of the Provincial Engineering and Local Traffic Services and the constitution of a new Lower Gazetted Service in the various branches. The separation of cadres of the older State-managed Railways is a problem involving many intricate adjustments: it will be necessary in arranging postings to the North Western, Eastern Bengal and East Indian Railways to ensure that the vested interests of officers are, as far as possible, protected and that the prospects of advancement of individual officers are reasonably equal, and at the same time to be careful to avoid an unduly large number of transfers. These questions are engaging the attention of the Railway Board who hope to be able to institute separate cadres in the near future. For the rest revised cadres incorporating the other features of the scheme were introduced with effect from the 1st March 1931, but it soon became necessary to review them in order to effect substantial reductions owing to the serious decline in traffic and other operations of

railways and on general grounds of economy. To this aspect of the question we shall revert at a later stage. Here we need only mention that, following the abolition of the Provincial Engineering and Local Traffic Services, 9 officers of those Services were promoted during the year to the superior services and the remainder transferred to the Lower Gazetted Services. It is proposed to consider the case of each officer transferred to the Lower Gazetted Services with a view to the promotion to the superior services in the next few years of those fully qualified for such promotion. As a result of the formation of the Lower Gazetted Services orders were also issued in August 1931 sanctioning the promotion of 33 subordinates to that service.

80. Organization of the Medical Department on State-managed Railways.—The question of re-organising the Medical Department of State-managed Railways has engaged the attention of the Government of India since 1925. Most of the Company-managed Railways including the East Indian, Great Indian Peninsula and Burma Railways recently transferred to the control of the State, had, and retain, a Medical Department of their own. The Medical organization on the older State Railway was, however, not uniform. The North Western Railway was dependent for direct medical service on the Civil Surgeons of the districts traversed and for administrative and consultative advice on the administrative medical officers of the Punjab, Bombay and Baluchistan. Similar arrangements existed on the former Oudh and Rohilkhand Railway, now amalgamated with the East Indian Railway. The Eastern Bengal Railway on the other hand had its own Chief Medical Officer with two District Medical Officers and for the rest depended for direct medical service on the Civil Surgeons.

From their experience of the working of medical organization on the various railways, the Government of India were impressed with the advantages of a special whole time medical staff who would be better informed of the special conditions in which the railway employees had to work, and, therefore, of greater assistance to railway administrations in maintaining the health and efficiency of the railway personnel. Accordingly, and as a sequel to the recommendations made by a senior officer of the Indian Medical Service who had been appointed on special duty to prepare a scheme for a self-contained medical organization for the North Western Railway, a Medical Department is in the course of being organized on that railway. In pursuance of the same policy medical districts have been added to the East Indian Railway in replacement of the collateral system which obtained on the former Oudh and Rohilkhand Railway, now amalgamated with the East Indian Railway, and similar arrangements have been made on the Eastern Bengal Railway.

A Medical Department, forming a branch of the Superior Revenue Establishment of State Railways, has thus been established and the Government of India have, with the approval of the Secretary of State, framed and issued in August 1931 rules regulating the recruitment of officers for this department in India and their scales of pay.

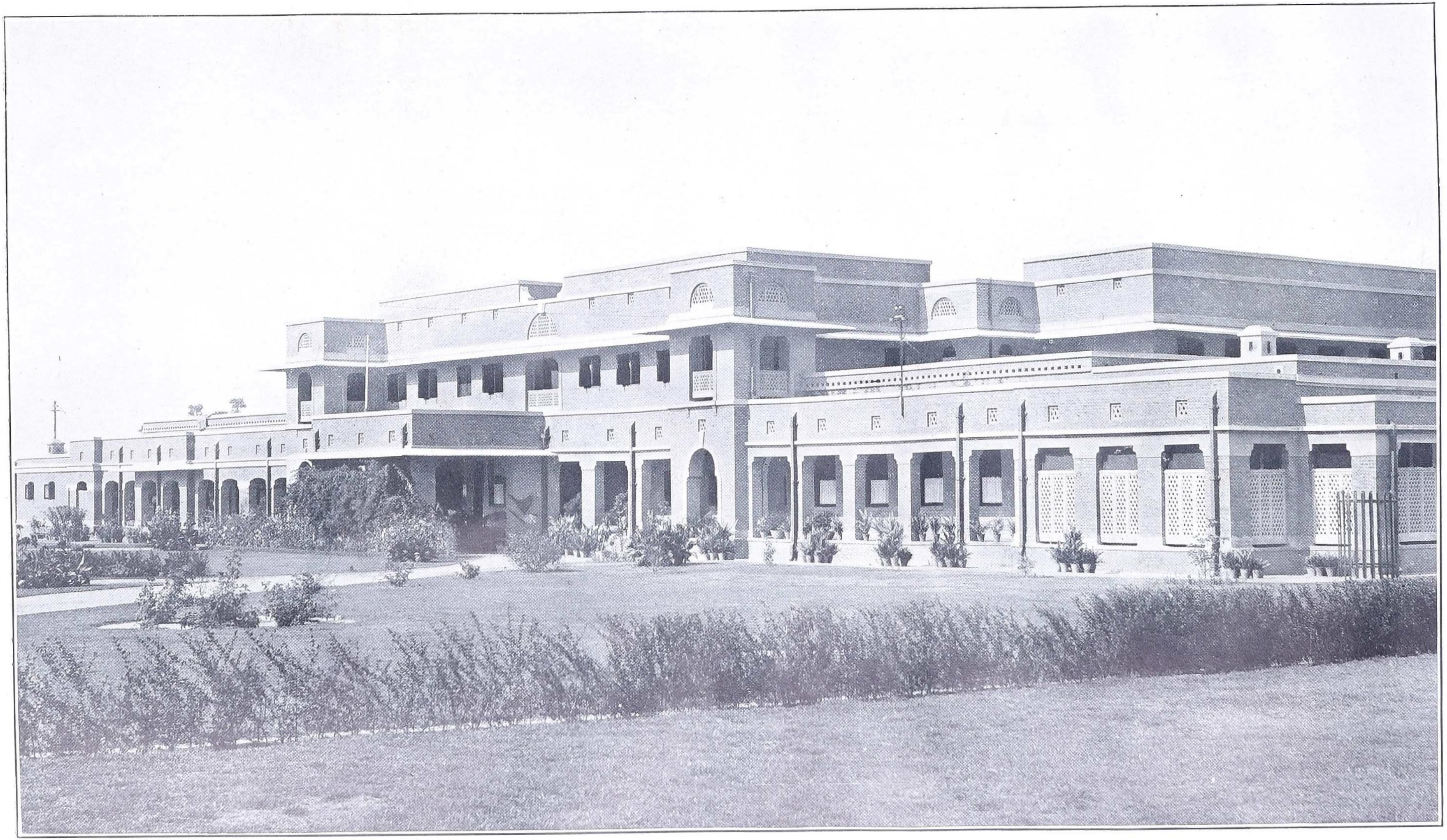
81. Rules regarding the recruitment and training of the subordinate staff.—In May 1931 the Railway Board issued rules for the recruitment and training of subordinate staff on State-managed Railways. These rules enunciate important principles to be observed in making recruitment with due regard to the proper representation in the services of minority communities. They also introduce a proper measure of standardisation of procedure in matters of first importance without fettering the discretion of railway administrations in the matter of prescribing rules of procedure in questions of detail and in dealing with exceptional cases on their merits. They apply to the subordinate staff of State-managed Railways in the branches and groups detailed below:—

(I) Transportation (Traffic)—

(*i*) Station Masters,

(*ii*) Guards,

(*iii*) Out door clerks.



Jamalpur Special Apprentices Hostel.

(II) Commercial—
- (*i*) Ticket Collectors,
- (*ii*) Coaching clerks,
- (*iii*) Goods clerks.

(III) Transportation (Power)—
- (*i*) Drivers.

(IV) Civil Engineering—
- (*i*) Permanent Way staff,
- (*ii*) Signal and Interlocking staff,
- (*iii*) Works Staff,
- (*iv*) Bridge Inspectors.

(V) Stores Depôt Staff—
- (*i*) Store-keepers.

Copies of the rules were forwarded to Company-managed Railways. In view of the special conditions obtaining on the Burma Railways, that administration has been permitted for the present to retain the rules already in force.

82. Training of Staff.—*Railway Staff College, Dehra Dun.*—The College continued its activities during the financial year under review until the end of February, 1932. The theoretical instruction given at the College was on the same lines as during the previous year and included one refresher course for senior officers, refresher courses for junior officers and theoretical training for probationers in the Transportation (Traffic) and Commercial Departments and the Indian Railway Service of Engineers. In addition to the courses for officers, refresher courses for senior subordinates continued to be undertaken at the College. There were also fuel economy classes and a special accounts course lasting a few days for the benefit of the more senior officers.

The table below shows the courses held throughout the year under review and the average attendance at each course :—

Courses.	Number and duration of courses.	Average attendance.
Senior subordinates' refresher courses .	5 courses lasting 1 month each .	20
Selected senior subordinates' courses .	2 „ „ 6 weeks „ .	17
Fuel economy courses . .	2 „ „ 2 „ „ .	24
Transportation and Commercial probationers' course.	2 „ „ 8 „ „ .	14
Probationary Civil Engineers' courses .	2 „ „ 6 „ „ .	11
Junior officers' refresher courses . .	4 „ „ 6 „ „ .	10
Senior officers' refresher courses . .	1 course „ 4 „ „ .	9
Special Accounts course . . .	1 „ „ 3 days „ .	...

The decline in the number of students attending the College during the year under review is due to the following causes :—

(*a*) Retrenchment exercised by Railways and the consequent difficulty of sparing senior and junior officers, and

(*b*) the slowing up of recruitment.

As a result of this decline, the number of student-days decreased to 9,472 as compared with 14,923 in the previous year, with proportionate increase in the expense per student-day.

In view of the unavoidable decrease in the number of students and corresponding increase in the working expenses of the College, it became clear that the institution could not continue to be run on lines consistent with the rigid economy demanded by the financial situation. Towards the end of the calendar year 1931 the Railway Board considered the future of the College and regretfully decided that it should be closed at the end of February 1932. A favourable opportunity for closing arose owing to the need of the Army Department for premises of the character of the Railway Staff College in which to inaugurate the new Indian Military Academy. The Army Department, therefore, offered to take over the Railway Staff College from the Railway Department and the property was made over at the end of the financial year 1931-32. The future training of officers and probationers is under consideration.

Area Schools.—A brief resume of the activities during the year of the Area Schools engaged in the training of railway staff is given below :—

Railway School of Transportation, Chandausi and Asansol Training School (*East Indian Railway*).—The Transportation School at Chandausi serves as an Area School for the East Indian Railway except that the Locomotive running and fitting staff and the Carriage and Wagon staff of the Operating Department are trained at the Asansol Training School. The activities of Chandausi were inevitably much curtailed during the year under review owing to the cessation of recruitment and as compared with 37,615 student-days during the year 1930-31 there were only 10,295 student-days during 1931-32. During the year 1931-32 courses of instruction were on the same lines as those in the previous year, but owing to temporary suspension of recruitment, there were only a few probationers' courses and refresher courses for the subordinate staff of the Operating Department. At the Asansol Training School Courses of instruction were introduced for Fitters, Improvers, and Apprentices with the object of giving them instruction in the latest types of standard locomotives. The year under review has produced record figures for this school, the attendance being 824 students. The total number of student-days were 12,537, and the cost per student-day Re. 1-7.

Railway School of Transportation, Bina (*Great Indian Peninsula Railway*).—This school was closed during the year under review.

Walton Training School, Kot Lakhpat (*North Western Railway*).—During the year under report this school has been actively engaged in the training of staff for the North Western Railway. The total number attending the school in 1931-32 was 1,302 as compared with 1,718 in the previous year. The reduction is due to the temporary suspension of recruitment for two categories—*viz.*, the Station Master and Commercial categories.

The training of line staff, both senior and junior, has been actively pursued and there are distinct signs of an increased efficiency resulting from such training. Four probationer officers have also been given two courses of instruction.

83. Improvement in the service conditions of the Staff.—(1) *Revision of the scales of pay of lower paid employees.*—As shewn in the last report considerable progress was made in the year 1930-31 with the investigation into the wages of lower paid employees and schemes for their improvement were sanctioned by the Railway Board on the Great Indian Peninsula, Eastern Bengal, East Indian, Madras and Southern Mahratta and Assam Bengal Railways, while the investigation on the North Western Railway showed that the wages of the lower paid employees on that railway compared favourably with those in force on other railways and did not call for improvement. Owing to the serious decline in railway earnings as a result of the world wide trade depression and to the drop in prices the Railway Board did not pursue the investigation further during the year under report. Only in one instance, namely, that of the lower paid employees of

Workmen's Institute, Saidpur.

the Electrical Department of the East Indian Railway, in view of an undertaking given in the previous year, revision of wages was sanctioned, with effect from the 1st September 1931, at an estimated annual cost of Rs. 32,000.

(2) *Hours of employment and periods of rest.*—The Indian Railways (Amendment) Act, 1930, dealing with the hours of employment of railway servants was passed by the Legislature in the spring of that year. The rules authorised by this Act were issued in January, 1931 and were followed by supplementary instructions in May, 1931. The Act provides for the application of the rules to individual railways from such dates as the Governor General may direct and in exercise of this power the regulations were given statutory force on the North Western and East Indian Railways from the 1st April, 1931.

The Railway Retrenchment Sub-Committee recommended that in view of the present financial stringency further action be suspended in this direction and that the regulations should not be introduced on those railways on which they were not already in force. The Government of India after giving the matter their careful consideration decided that, in view of the international obligations incurred by the ratification of the Washington and Geneva Conventions it was imperative to give statutory effect to the rules on the Great Indian Peninsula and Eastern Bengal Railways, with effect from the 1st April 1932 but that their application to other railways should be held in abeyance for the time being. From the 1st April 1932, therefore, all State-managed Railways with the exception of the Burma Railways have been brought within the scope of the Act, and it should be remembered that these railways employ more than half of the total number of workers on Class 1 Railways. The Railway Board have also advised the railway administrations on whose lines the regulations have not been given statutory force to continue to review the hours of work and periods of rest of their employees with a view to revising any arrangements which impose unreasonable conditions of work on particular classes of employees and applying the provisions of the regulations where this can be done without incurring additional expenditure.

With effect from the 1st April, 1931 a Supervisor of Labour unconnected with individual railway administrations was appointed under the Indian Railways (Amendment) Act, 1930, to inspect the railways to which the regulations have been applied in order to determine if the provisions of the Act and the rules made thereunder are duly observed. With his help the Railway Board are kept fully informed from time to time of the working of these regulations on such railways and under his direction six Inspectors of Labour are employed to ensure that the provisions of the Act are properly applied, and to help the administrations concerned to give effect both to the spirit and the letter of the regulations.

(3) *Revision of Leave Rules.*—As stated in the last report new leave rules for State Railway employees were sanctioned, with effect from the 1st April 1930. It was also decided with the sanction of the Secretary of State that the new rules shall be regarded as the Fundamental Leave Rules for the guidance of the Company-managed Railway administrations, with effect from the 1st October, 1931, employees in the service of the Companies on the 30th September, 1931 being given the option of coming under the new rules or remaining under the old rules. In pursuance of this decision the Bengal Nagpur, Assam Bengal, Bombay, Baroda and Central India and South Indian Railways have modified their leave rules to bring them into line with the new State Railway Leave rules while revised rules have also been drawn up for the Madras and Southern Mahratta Railway which are at present under examination by the Railway Board.

During the year under report certain minor improvements were also sanctioned in the new leave rules in their application to persons in inferior service, labourers and other daily rated staff and temporary employees with a long term of service at their credit.

(4) *Acceleration of payments.*—Mention was made in the last report of the scheme adopted on certain divisions of the East Indian Railway for speeding up payments so as to ensure that salaries and allowances were paid within 7 and 14 days respectively of the close of the month to which they relate and of a demonstration of the scheme held at Moradabad in December, 1930. Following this demonstration, a pamphlet describing the detailed procedure introduced on the Moradabad Division was prepared and circulated to the various railways in April, 1931, with a view to stimulating an analysis of the present position and revision of the existing methods on all railways, each being left free to follow a method best suited to its traditions and local conditions but with the common object of reducing to an absolute minimum the delay in the payment of wages. The Bengal and North Western Railway has since reported certain improvements in this direction while more recently the Eastern Bengal Railway which is worked on the departmental basis has also introduced a system for the preparation and payment of wages bills so as to ensure that workshop staff receive their wages within 8 to 10 days and all other staff within 7 days of the period to which they relate.

(5) *Investigation into the system of raising and recovering debits.*—As a result of complaints made that debits were raised against the staff in trivial matters and out of all proportion to the offence a senior traffic officer was placed on special duty in November, 1930 to investigate and report on the procedure in force on the East Indian Railway in the matter of raising and recovering of debits. A preliminary examination of his report which was received in March, 1931 revealed a large percentage of debits raised and subsequently withdrawn both in respect of local and foreign traffic and it was felt that if this percentage was reduced to a minimum, not only would the staff be spared unnecessary worry and suspense but it would be possible to effect an appreciable reduction in the staff of the Outstanding Section of the Chief Commercial Manager's Office and in the Accounts Offices. Accordingly, and having discussed the matter on the 13th March, 1931 with the Controller of Railway Accounts and certain responsible officers of the East Indian Railway, the Railway Board decided to make certain changes in the arrangements affecting the clearance of station outstandings in force on the East Indian Railway, calculated to yield material savings. Other railway administrations were also instructed to consider the possibility of effecting economies by improving the existing procedure in the matter.

The report of the officer on special duty was discussed at a special meeting attended by representatives of all the principal railways in December, 1931, and as a result of the discussion at this meeting and of subsequent examination of the questions involved, it was decided, *inter alia*:—

(1) that with a view to eliminating fines and debits for petty offences a trial should be given by the North Western Railway to the Conduct Marks System in force on the Burma Railways and the question of extending the system to other railways considered after the experiment has been tried out on the North Western Railway;

(2) that irregularities in the issue of service messages, except when private telegrams were sent as service messages, should be dealt with by a warning or other suitable method instead of by the imposition of a fine or debit;

(3) that petty recoveries should not ordinarily be made;

(4) that with a view to reducing to a minimum the percentage of debits unnecessarily raised and subsequently withdrawn a system be tried on the Eastern Bengal Railway under which error sheets for amounts exceeding a certain amount should be checked by a gazetted officer of the Accounts Department, and, if necessary, discussed with a Commercial Officer, a debit being raised only after both are agreed as to its correctness;

(5) that in local booking no debit should be raised more than 6 months after the date of booking;

(6) that without the sanction of a Divisional Superintendent or Head of Department no recovery on account of fines and debits should be made from an individual employee in any one month in excess of 20 per cent. of his gross pay.

Instructions on these lines have been communicated to the State-managed Railways for guidance and a copy forwarded to the Company-managed Railways. In view of the complaint made by the All-India Railwaymen's Federation that staff get little or no redress when an appeal against debits is made, Railway Administrations were also asked to submit a report on the procedure followed in dealing with appeals against debits and their replies show that appeals are allowed to the authority next higher to the officer imposing the debit and are given due consideration.

84. Welfare.—(1) *Assistance to railway employees for the education of their children.*—As stated in the previous report, new rules for the grant of assistance to railway employees towards the education of their children were provisionally issued in September, 1930, and an officer of the Education Department was placed on special duty in the following November to make a detailed estimate of the cost of the introduction of the rules, as well as the cost as it would be if the rules were liberalised in certain directions, and further to report on the administration of the schools maintained by the State-managed Railways. This officer completed his investigation on the Eastern Bengal Railway in 1931 and was at the end of the year engaged in a similar investigation on the East Indian, North Western and Great Indian Peninsula Railways. His reports are now under examination by the Railway Board.

(2) *Staff Benefit Fund.*—As stated in the last report, staff benefit funds were introduced on the State-managed Railways, with effect from the 1st April, 1931. A copy of the rules of the funds were also forwarded to the Company-managed Railways and all of them have since introduced the new fund, with the exception of the Madras and Southern Mahratta Railway which proposes to establish the fund from the 1st January, 1933.

(3) *Relief of Indebtedness.*—The question of devising practicable means of combating the evil of indebtedness among railway employees continued to receive consideration during the period under review. The Royal Commission on Labour have recommended that all Railway Administrations should make persistent efforts to help their workers by means of co-operative credit and that a study should be made of the methods adopted on the Bombay, Baroda and Central India Railway. On practically all railways Co-operative Credit Societies in some form are already well established, but as a general rule their activities extend only to employees who are subscribers to the Railway Provident Fund, to the exclusion of the lower paid staff whose need for assistance in this direction is fully recognised. The difficulty in placing the facilities of the existing Railway Co-operative Credit Societies at the disposal of the lower paid employees is that these societies are not under the control of the Railway Administrations though in some cases the Administration may have the right of representation on the Committee of Management as certain facilities are given by the administration to the Society. The societies manage their own affairs under the supervision of the Registrar of Co-operative Societies and are generally averse to any relaxation of their rules to permit loans to non-subscribers to the Provident Fund.

As mentioned in the last report a " Lower Paid Staff Loan Fund " was constituted on the East Indian Railway in July, 1931, with a view to affording some relief to the lower paid employees. This fund started with a capital of Rs. 1,40,000 transferred from the East Indian Railway Indian Staff Loan Fund, which was absorbed by the new fund and at the end of the year had a total working capital of Rs. 1,96,700 including profits and a loan borrowed from the Staff Benefit Fund. The Fund is steadily growing in popularity and since its initiation in July, 1931, and up to the end of the year, 2,095 loans were granted to the lower paid staff amounting in the aggregate to Rs. 1,35,715

at the rate of $6\frac{1}{4}$ per cent. per annum. Towards the end of the year the Agent, North Western Railway, under the instructions of the Railway Board, worked out a scheme for a fund on similar lines on his railway and with the sanction of the Government of India started the fund, with effect from the 1st April, 1932, with a capital of Rs. 1 lakh borrowed from the Staff Benefit Fund of the Railway.

85. Railway Sports.—The annual inter-railway football tournament was held during September, 1931. The East Indian, North Western, Bombay, Baroda and Central India and South Indian Railways won the group tournaments held in Calcutta, Lahore, Bombay and Madras respectively. The semi-finals and the finals were played in Simla and the East Indian Railway won the tournament, the Bombay, Baroda and Central India Railway being the runners up.

The inter-railways athletic tournament for 1931-32 could not be held till the 2nd April 1932. The tournament was held in Delhi and teams representing the North Western, Madras and Southern Mahratta, Bombay, Baroda and Central India, South Indian and Nizam's State Railways and the office of the Railway Board competed. The North Western Railway won the athletic championship for the fourth year in succession, the Bombay, Baroda and Central India Railway being the runners up.

86. Report of the Royal Commission on Labour.—The Report of the Royal Commission on Labour was published in July, 1931. The recommendations made by the Commission are of an important and far reaching character and during the year under report considerable progress was made by the railway administrations and the Railway Board in their examination. At the time of the annual session of the Indian Railway Conference Association in October, 1931 the Agents of railways had first a meeting among themselves and then with the Railway Board and as a result of these meetings the Board were able to formulate provisional conclusions on the majority of the recommendations contained in the Chapters devoted to Railways. The remaining recommendations concerning the Railway Department were discussed by the Board with the Agents of railways at the meeting held in April of the following year and it is proposed to set out in the next year's report the conclusions reached and action taken on the Report.

87. Elimination of Racial Discrimination.—As stated in the last report a comprehensive review was made in February, 1931 of the progress made in carrying out the policy of Government for the elimination of racial discrimination in respect of the entire field of service conditions including recruitment and training, pay and allowances, leave, quarters, education, free passes, medical attendance, etc. The review showed that this policy had been fully carried out on all State-managed railways, while considerable progress had also been made in the same direction on Company-managed railways. The Board continue to watch the position carefully and in April, 1931 called for a detailed and clear statement from Company-managed railways showing all matters in which there were still any vestiges of racial discrimination, with their recommendations for its complete elimination. The reports received which record further progress were subjected to a detailed analysis and the next report will set forth the instructions issued in the following year to the Company-managed railways and the results of a fresh review of the position on those railways which it is proposed to undertake shortly.

It would be pertinent to mention here that the Royal Commission on Labour have recommended *inter alia* that definite steps should be taken which will lead in a specified term of years to the progressive elimination of any form of racial discrimination as regards both appointment and promotion to all grades and classes—a recommendation which was unanimously accepted at the Agents meeting held on the 9th October, 1931.

88. Economies in Staff charges.—We have referred in the last report to the serious decline in railway earnings culminating in an economy campaign on an extensive scale commenced towards the end of the year 1930-31.

Sports at opening of Workmen's Institute, Saidpur.

Owing to the continued fall in earnings the efforts for economy were carried on with redoubled vigour during the year under report and it is proposed to describe the principal measures taken in the direction of effecting economies in staff charges, which are responsible for roughly 50 per cent. of the total working expenses of railways, under the following heads:—

(1) Reduction in the strength of the subordinate and inferior staff and of workshop employees.

(2) Reduction in gazetted or superior cadres.

(3) Reduction in special pay and allowances.

(4) Emergency cut in pay.

(5) Revision of the scales of pay of future entrants into the Superior and Subordinate Services.

Reductions in the strength of the subordinate and inferior staff and of workshop employees.—The bulk of staff retrenchment under this head was carried out from the 1st March to the 7th July, 1931. Mention has already been made in the last year's report of the instructions issued by the Railway Board in March, 1931 with the object of regulating the discharges of the surplus staff in a fair and reasonable manner and of minimising the hardship entailed. It was decided *inter alia* that employees selected for discharge should be granted leave due and admissible, other than leave on medical certificate, or one month's pay in lieu of notice whichever was greater. Furthermore, certain categories of staff were allowed leave up to six months on half pay, even if such leave was not due to them, if their services were likely to be required again at short notice. These instructions were applied to all classes of staff except:—

(*i*) employees drawing not more than Rs. 30 per mensem in respect of whom the Agents of Railways were authorised to prescribe the terms to be allowed and the procedure to be followed; and

(*ii*) workshop employees.

Instructions in respect of workshop employees, conceived with a similar purpose and based upon similar principles, were also issued. As the vast majority of workshop employees are eligible only for a limited amount of leave, the Government of India specially sanctioned for them, in lieu of leave, one month's pay in lieu of notice and, in the case of those who had completed three years' service, a bonus ranging from half a month's pay to 20 days' pay.

In July, 1931, as a result of representations made by the All-India Railwaymen's Federation and in consultation with the Agents of Railways, it was decided to suspend further discharges until the end of October, 1931 when it was intended to review the situation again. This decision applied to workshop staff on State-managed Railways as well as other staff both on State-managed and Company-managed Railways, while in respect of workshop staff on Company-managed Railways, the Agents of such railways were invited to follow a similar procedure; it did not, however, apply to staff engaged for purely temporary purposes, whose services would be terminated in the ordinary course on the cessation of the work for which they were employed.

At the time it was decided to suspend discharges, the Railway Board were not without hope that the financial outlook might improve and that railways might be able to maintain at least the level of the earnings of the previous year after the monsoon was over. These expectations were, however, falsified and the trend of earnings continued to show a serious decline as compared with the previous year. Accordingly the Board felt that it was incumbent upon them to take stock of the position and at a meeting held on the 8th October, 1931 they found the Agents of Railways unanimously of the opinion that in view of the continued serious decline in earnings and of the unfavourable prospects ahead, further discharges were inevitable. The Railway Board concurred in this view, but in view of further representations made by the All-India Railwaymen's Federation at three successive meetings

held on the 30th October, 1931, the 2nd December, 1931 and the 2nd February, 1932, respectively, and as the Report of a Court of Enquiry which had been appointed under the Trade Disputes Act, 1929, by the Government of India in August, 1931, to investigate certain matters connected with staff retrenchment on Indian Railways, was expected soon after the meeting of the 2nd February, 1932, instructions authorizing the resumption of discharges were not actually issued until June, 1932.

The total number of men discharged up to the close of the year under review on the State and Company-managed railways as a result of the economy campaign was 40,502 of whom 33,077 were discharged on State-managed and 7,425 on Company-managed railways. Of the total number of employees discharged 15,369 were workshop employees and 25,133 other employees. The number of permanent employees discharged was 32,655 and the remainder, *i.e.*, 7,847 were temporary employees. Of the former 16·3 per cent. were with service of 10 years and over, 27·8 with service between 3 and 10 years, 25·5 per cent. with service between one and three years and 30·4 per cent. with less than one year's service. The savings in wages in a full year as a result of the discharges effected as well as of 4,392 demotions are estimated to amount to Rs. 1·32 crores per annum.

Reduction in Gazetted or Superior Cadres.—The question of effecting reductions in the gazetted cadres of State-managed railways, in view of the serious decline in traffic and on general grounds of economy, engaged the attention of the Railway Board during the year under review and after considering the recommendations made in this behalf by the Railway Retrenchment Sub-committee, orders were issued in February, 1932, reducing the cadres of those railways as sanctioned in March, 1931 from 1,037 to 932, the reduction being as under :—

(1) Reduction in the leave and deputation reserve . . .	41
(2) Withdrawal of provision formerly made in the permanent cadres for constructions and surveys	36
(3) Reduction in open line working posts	28
	105

As an offset against (2) it will be necessary to sanction temporary posts from time to time according to actual requirements, but care will be taken to see that these are restricted to an absolute minimum.

It was further decided to hold in abeyance 29 posts, out of the reduced cadres until conditions improve and it becomes necessary to utilise any of them.

The superior cadres of the Company-managed Railways were also examined at the same time and orders were issued abolishing 24 posts and, in addition, holding in abeyance 46 posts.

The Board also reviewed the cadres of offices under their control outside railways and orders have been issued :—

(1) abolishing 4 posts in the Central Publicity Bureau and one in the London Publicity Branch;

(2) closing down the Railway Staff College at Dehra Dun and abolishing the posts of Principal, Superintendent, three Instructors and two Assistant Instructors sanctioned for the College;

(3) holding in abeyance 3 posts of Senior Government Inspectors, creating at the same time an extra post of the rank of Executive Engineer to assist the Senior Government Inspector at Calcutta; and, finally,

(4) holding in abeyance in the Board's Office 2 Members, 2 Directors, 1 Deputy Secretary and 1 Assistant Director, an additional post of Deputy Director being created in the Traffic Branch with the disappearance of Member Traffic.

The total reductions made in the State Railway and Companies' cadres are analysed below according to the rank of the various posts brought under reduction.

State Railway Cadre including the Railway Board's Office and other Offices Subordinate thereto.

	Administrative.	Senior Scale.	Junior Scale.	Lower Gazetted Service.	Total.
Posts abolished	6	26	78	7	117
Held in abeyance	8	7	13	8	36
Total	14	33	91	15	153
Companies Railways.					
Posts abolished	1	10	13	...	24
Held in abeyance	2	12	32	...	46
Total	3	22	45	...	70

As a result of these reductions and of the curtailment in the number and magnitude of Engineering works it has been necessary to terminate the services of a large number of Temporary Engineers both on State-managed and Company-managed railways.

Reduction in Special Pay and Allowances.—In pursuit of the economy campaign commenced towards the end of the year 1930-31 the Railway Board issued orders that Railway servants of all ranks should be expected to take up some additional work, or perform work of a somewhat more onerous or arduous nature than when employed in the regular line, if called upon to do so, without additional remuneration. According to this principle all cases in which special pay had been sanctioned before were reviewed and orders were issued in April, 1931 either abolishing or reducing such pay in the majority of them. The Agents of Railways were also instructed to review cases in which special pay had been sanctioned by them with a view to taking similar action.

With regard to personal pay, while existing sanctions were allowed to remain in force until their period expired, it was ordered that no fresh sanctions should be given nor an existing sanction renewed after its period had expired, save in cases of really exceptional character.

With a view to reducing acting allowance charges, orders were issued in May, 1931 that no officiating arrangements should be made in vacancies likely to last for a period of 21 days or less.

Compensatory allowances drawn by the staff, superior and subordinate, were also reviewed during the year and orders were issued in April, 1931 reducing the Calcutta, Bombay and Rangoon compensatory allowances granted to officers with headquarters at Calcutta, Howrah, Lillooah, Bombay and Rangoon, as a temporary measure, by 12½ per cent. Other compensatory allowances drawn by the staff on the various State and Company-managed Railways were also reduced, the rate of reduction being generally 12½ per cent. when such allowances were allowed concurrently with house rent allowances and 10 per cent. when no house rent allowance was admissible. In May, 1931 it was also decided to abolish the system of relieving allowances granted to staff posted to relieving duty at stations; such staff are now granted daily allowance when sent out to perform relieving duty.

Emergency cuts in Pay.—In view of the present acute financial stringency the Government of India, with the approval of the Secretary of State, decided to make an emergency reduction in the pay of Government servants

not exceeding 10 per cent. This reduction is made under the Railway and Posts and Telegraph (Emergency Deductions from Salaries) Rules, 1931, from the pay and allowances of the nature of pay of all railway servants including daily rated employees in accordance with the following scale :—

	Reduction
Where the pay and allowances of the nature of pay :—	
(*i*) do not exceed Rs. 30 per mensem	Half an anna in the rupee for every complete rupee.
(*ii*) exceed Rs. 30 per mensem but do not exceed Rs. 83-5-4 per mensem	One anna in the rupee for every complete rupee.
(*iii*) exceed Rs. 83-5-4 per mensem	10 per cent.

The emergency cut came into force with effect from pay for December, 1931 payable in January, 1932 and under existing order will terminate with the pay earned for March, 1933. Provident Fund bonus and gratuity continue to be allowed on the rates of pay which would have been drawn but for the temporary reduction.

The case of workshop employees working short time was specially considered and it was decided that the cut in wages shall be subject in their case to the condition that the total loss in wages due to short time and to the cut does not exceed the equivalent of the normal wages for 23 hours in a month.

Similar rules have been adopted on Company-managed railways with the exception of the Bengal and North Western and Rohilkund and Kumaon Railways where, having regard to the rates of pay in force, the cut has not been applied, save in a few isolated cases in which the scales of pay are analogous to those obtaining on the contiguous lines.

Revision of the Scales of pay of future entrants into the Superior and Subordinate services.—The fall in prices and the pressing need for economy have brought to the foreground the question of revising the scales of pay of the superior and subordinate services with a view to ensuring, as far as possible, that they represent only what is necessary to attract suitable recruits and provide them with reasonable remuneration. The Railway Board are examining this question in its many bearings.

89. Meetings with the All-India Railwaymen's Federation.—During the year under report, the Railway Board met the representatives of the All-India Railwaymen's Federation on four occasions, twice at half-yearly meetings in June and December, 1931, and twice at special meetings in October, 1931 and February, 1932. The main subject discussed at the half-yearly meetings was staff retrenchment, while the special meetings were specially convened to discuss the same subject. As stated elsewhere, it was decided, as a result of the representations made by the Federation at the half-yearly meeting held in June, 1931 and in consultation with the Agents of Railways to suspend the discharges of staff, with minor exceptions, with effect from the 7th July, 1931 until the end of October, 1931 when it was intended to review the situation again. As a result of the review made in October, the Railway Administrations came to the conclusion, in which the Railway Board concurred, that owing to the continued decline in railway earnings, the resumption of staff retrenchment was inevitable. In view, however, of the further representations made by the representatives of the All-India Railwaymen's Federation at the subsequent meetings held with them and as the report of the Court of Enquiry was expected soon after the meeting of February, 1932, the issue of orders authorising the resumption of retrenchment was postponed until June of the following year.

90. Court of Enquiry.—In August last year, the Governor General in Council, in exercise of the power conferred by Section 3 of the Trade Disputes Act, 1929, appointed a Court of Enquiry in connection with a trade dispute

between the State-managed and Company-managed railway administrations and their respective workmen regarding the scheme of staff retrenchment adopted or to be adopted on the said railways, with instructions to enquire into the following matters :—

" (1) Whether the retrenchment has imposed improper conditions of work on the staff still employed;

(2) Whether the terms allowed to the staff that has been discharged are inadequate or unreasonable;

(3) Whether having in view the limitations imposed by the commercial management of railways, the fullest regard has been paid, when discharging the staff, to the following alternatives—the stoppage of recruiting, the operation of normal wastage, working short time, the retirement of staff taking their gratuity and provident fund, or the transfer of individuals to other departments or other railways on similar or even reduced rates of pay;

(4) Whether there has been victimisation or favouritism in discharging establishment; if so, whether this can be avoided and how; and

(5) Whether staff discharged on the ground of retrenchment can or should be given any assurance of re-engagement on recruitment being resumed."

The Court held public sittings in Bombay for a month commencing from the 9th September, 1931 and thereafter in Madras, Calcutta and Lahore. The workmen were mainly represented by the All-India Railwaymen's Federation but in several cases they were also heard individually. The Report of the Court was signed on the 27th February, 1932 and published on the 9th March. The Government of India's decisions on the findings of the Court were not announced until the 6th of June in the following year, but it would be convenient to state them in brief in this report.

With regard to the first of the issues referred to the Court of Enquiry, the Court's finding on the evidence led before it was that the retrenchment had not imposed improper conditions of work on the staff still employed, save in two minor instances of signalmen at Parel and porters employed in connection with train indicators at Mahim. The attention of the administration concerned was drawn to these cases and steps have been taken by it to put the matter right.

With regard to the second, *i.e.*, the adequacy or otherwise of the terms allowed to the staff discharged, the Court recognized that this was really a question of finance.

With regard to the third term of reference, the Court was satisfied that in making the retrenchment due regard had been paid to the stoppage of recruitment, normal wastage and retirement of staff taking their gratuity and provident fund. As regards transfers to other railways or other departments of the same railway, the Court recognized that inter-railway transfers are not a practical proposition, while inter-departmental transfers were limited by the ' category ' or ' trade ' difficulty. With regard to short time, the Court found that " short time is essentially a workshop device, and has been put in force in nearly all the workshops of the Administrations whose retrenchments " it had examined and further agreed with the witnesses on the point that " working short time can only be a temporary expedient, and that when there are no signs of a probable early increase of the volume of work to be done, the alternative of a reduction of staff by discharge is preferable ". Taking short time in its wider sense, the Court referred to certain expedients for spreading work so as to minimize discharges and observed that they had not all been adopted in the various administrations while compulsory leave without pay and absence from duty on half pay were enforced on certain railways.

With regard to the fourth term of reference, the Court heard a number of individual cases of alleged hardship and in paragraphs 266 to 279 of the

report gave two lists, List A recommending the reinstatement of 80 men and List B suggesting the re-examination of 68 cases with a view to the reinstatement of deserving persons. This in fact was the main recommendation made by the Court and the Government of India, although not aware in all cases of the precise grounds which led the Court to make it, have accepted it out of a desire to give effect to the recommendations made by the Court as far as possible and have instructed the Agents of the State-managed railways, and invited the Agents of the Company-managed railways, to reinstate such employees who were discharged or demoted as a measure of retrenchment as are named in List A, whether vacancies exist or not, and to investigate the instances mentioned in List B with a view to similar action being taken in respect of deserving cases.

With regard to the fifth term of reference the Court found that the suggestion made in it had been carried out on all the administrations though in some cases those discharged for inefficiency or " least efficiency " had not been entered in the waiting lists. The Court recommended that those retrenched for short service only should be given an assurance of re-employment when recruiting is resumed but suggested that " it would probably be just to retain " on the waiting lists men who were discharged as being " least efficient ", since this category was not very clearly demarcated or understood in the retrenchment of 1931. The Court further recommended that men on the waiting lists should ordinarily be recalled in the inverse order in which they had been discharged.

The Government of India have issued instructions regarding the inclusion of workshop employees in the waiting lists, but they were unable to accept the tentative suggestion that " it would probably be just to retain " on the waiting lists men who are discharged as being " least efficient ", since in their view it would not be in the public interests that men should be reinstated who have been discharged on grounds of inefficiency or least efficiency. They have accepted the recommendation that men on the waiting lists should be recalled on the occurrence of vacancies in the inverse order in which they were discharged, subject to such adjustments as may be necessary to maintain the proportions of the various communities approximately at the levels at which they stood prior to retrenchment.

Further, as a result of representations made by the All-India Railwaymen's Federation, and in order to facilitate the re-employment of men on the waiting list the Railway Board have issued orders allowing special terms to persons retiring voluntarily up to the 31st October, 1932 from units in which there was a waiting list.

The Court also commented upon the varying application by certain administrations of the orders issued by the Railway Board on the subject of staff retrenchment. The Railway Board have drawn the attention of the railway administrations to this comment and impressed upon them the necessity for taking steps to avoid the possibility of such criticism in future.

The other recommendations of the Court which has a bearing on future block retrenchments will be dealt with in connection with the retrenchments made in 1932-33 in the next report.

CHAPTER VII.

MISCELLANEOUS.

91. Passenger train services and travel amenities.—The year under review proved to be worse than the previous year from the financial point of view, but improvements in the passenger train organisation, and station arrangements continued to receive the careful attention of railway administrations. The programme for providing up-to-date coaching stock and carrying out of improvements to the existing stock and matters such as the provision of cool drinking water to passengers, restaurant cars, refreshment rooms and catering arrangements, waiting room accommodation and various other minor details which go to ensure the comfort of passengers, continued to receive adequate attention of railways, in spite of grave financial stringency. In the following paragraphs, the measures adopted by the principal railways are briefly outlined :—

Train services.

Assam Bengal Railway.—Many changes of a minor nature were made in the train service which resulted in a daily increase of 194 mixed train miles as on 31st March, 1932, when compared with the figures for 1931.

Bengal Nagpur Railway.—The Talchar-Khurda Road passenger trains were extended to Puri and a mixed train service was introduced on the Rourkela-Birmitrapur branch. Seven shuttle services, which were not found useful, were withdrawn as a measure of economy and six were introduced on other sections. Of the latter, two were to meet motor-bus competition, two to provide additional facilities for the public and the remaining two to serve as feeders for main line trains.

Bengal and North Western Railway.—Two fast light trains were introduced between Muzaffarpur and Sagauli (62½ miles) for the convenience of court passengers.

Bombay, Baroda and Central India Railway.—Many changes in the passenger and mixed train services were introduced on both broad and metre gauges. On 31st March, 1932, there was a decrease of 1,295 train miles per day on the broad gauge and 324 train miles per day on the metre gauge, as compared with the figures for 1931 in respect of passenger and mixed train services. The Frontier Mail was amalgamated at Delhi with the Great Indian Peninsula Railway Punjab Mail for the run between Delhi and Peshawar. A few third and upper class bogie carriages from the Down Punjab Express were carried to Peshawar on another express train from Delhi. Two passenger trains between Baroda and Rutlam and two between Rutlam and Agra Fort were cancelled and a goods train with the third class accommodation was introduced between Godhra and Dohad for the convenience of local passengers. Two shuttle trains were introduced between Fatehpur-Sikri and Agra Fort to combat motor-bus competition.

On the metre gauge two trains running between Achnera and Ajmer, two between Delhi and Phulera, two between Rewari and Bandikui and two between Bandikui and Phulera were cancelled, and two passenger trains running between Delhi and Bandikui were extended to and from Ajmer.

Burma Railways.—Due to civil disturbances necessitating the running of Armed patrol trains, the speed of certain trains was restricted during certain hours of the night. In view of the need for economy, a number of trains of the main and branch lines were cancelled and this accounted for a decrease in the mixed train mileage; of 1,448 on 31st March, 1932, as compared with 31st March, 1931. The section Heho to Shwenyaung, which had been closed for passenger traffic from 1st November, 1930, was reopened from 1st April, 1931. The train service on the Pyinmana-Kyaukpadaung branch, which had given cause for complaint, was revised and a new system

of train service was brought into force on the 15th August, 1931. A new local train each way between Karopi and Ye was introduced; but as these trains were found only to take away passengers from other two through trains, without increasing the number of passengers travelling to any appreciable extent on that section, they were cancelled.

Eastern Bengal Railway.—Owing to general trade depression, goods train service was reduced and on certain sections a number of passenger trains were converted into mixed trains. The suburban train service was also reduced. The train miles run per day by passenger trains other than mail and express trains on the metre gauge were reduced from 6,115 to 5,870 miles. The train miles on the broad gauge were increased from 9,078 to 9,159 due mainly to the opening of Kalukhali-Bhateapara Railway.

East Indian Railway.—The total mileage of mail, express and other passenger trains including mixed trains, suburban trains, and shuttle services was 1,269,008 during the month of March, 1932, as compared with 1,230,463 in the corresponding month of 1931, amounting to an average increase of 1,243 train miles per day.

Great Indian Peninsula Railway.—Owing to the continued falling off in passenger traffic, on the broad gauge, two mail and express trains, twelve passenger trains and thirty-five suburban electric trains were cancelled and the number of mixed trains was increased by 12 resulting in an average daily decrease of 3,068 train miles.

Jodhpur Railway.—Two mixed trains between Jodhpur and Marwar Junction, two between Mirpurkhas and Hyderabad (Sind), two between Sujangarh and Degana, two between Ladnun and Sujangarh and two between Makrana and Parbatsar City were cancelled during the year and one mixed train from Jodhpur to Luni Junction was introduced.

Madras and Southern Mahratta Railway.—No important new trains were introduced during the year. The running of trains was altered in many cases and inspite of certain trains being cancelled. The charges resulted in a daily increase of 39 train miles on the broad gauge and 227 miles on the metre gauge passenger and mixed train services as on 31st March, 1932, compared with the figures for 31st March, 1931. A noticeable feature was the cancellation of the two express trains running between Mysore and Secunderabad and running in their stead of two through coaches on connecting trains.

North Western Railway.—On account of the general depression prevailing in the area served by the North Western Railway, the passenger train services had to be curtailed as in the case of other railways. On the broad gauge the number of passenger and mixed trains, excluding shuttle services running on 31st March, 1932, was less by 35 as compared with the figures for 31st March, 1931, resulting in an approximate daily reduction of 5,741 train miles.

South Indian Railway.—In addition to the trains on the new lines opened for traffic during the year, 54 additional trains on the metre gauge and 12 additional trains on the broad gauge were introduced for the convenience of passengers. Further, 51 trains on the metre gauge and 14 trains on the broad gauge were extended during the year. This resulted in an increase in train miles per day of 62 under " Mail and Express " and 872 under " Passenger " trains.

On and from 20th April, 1931, a new suburban electrified line was opened between Tambaram and Madras Beach and the complete electric service of suburban trains came into force from 1st August, 1931. At the end of the year there were 100 trains running per day in this section (50 in each direction), the time taken for the journey being only 50 minutes as against 100 minutes formerly taken by the suburban trains running on the steam line.

Improvements in the design of and accommodation in carriages.

Assam Bengal Railway.—The programme of fitting electric lights to all passenger vehicles was completed. Out of 493 third class and intermediate

Strengthening Indus Bridge at Kotri.

class carriages (including composites with upper class carriages), 478 were provided with latrines, of these 461 have been provided with water tanks as well.

Bengal and North Western Railway.—With a view to reducing thefts on running trains, continuous foot boards were replaced with short foot boards at doors on twenty bogie third class carriages. One compartment of each bogie intermediate class carriage was converted into a third class women's compartment and these compartments were provided with latrines and improved seating accommodation.

Bengal Nagpur Railway.—Thirty bogie passenger carriages, *viz.*, five first and second, one intermediate and third and twenty-four third luggage and brake, were built and placed on the line. All are fitted with electric lights and provided with latrine accommodation.

Bombay, Baroda and Central India Railway.—The work of replacing old type carriages by modern stock of the latest standard was continued during the year. The new carriages were provided with larger latrines, while the latrines in the existing coaches were improved in some cases. The work of converting the gas lit stock to electric lighting was completed, except in a few old coaches not considered fit for conversion. In first class carriages, reading lamps were provided over each berth and the number of fans was increased from two to three in large compartments and from 1 to 2 in coupe compartments, in addition to the provision of combined shower and needle baths. The work of providing fans in all second class compartments also continued to receive attention. External lighting was tried on one rake each on the broad and metre gauges, and found satisfactory from a traffic point of view, especially at stations with short platforms where part of the train stood off the platform and those with low level platforms.

Burma Railways.—The work of fitting electric lights to the bogie coaching stock on the railway was completed and three rakes of four-wheelers were equipped with electric lights as an experimental measure. 157 additional pulls for passenger communication were provided in upper class carriages.

Eastern Bengal Railway.—All new coaches constructed during the year were provided with improved lighting arrangements and some of the intermediate class carriages were provided with upper bunks over the middle seats. Latrines were provided in the servants' compartments of new and existing upper class coaches. The fitting of latrines with iron enamelled pans in lower class metre gauge carriages was continued during the year. Coat hooks were fitted in the latrine of a number of lower class coaches. The seats of some upper class carriages were widened. Due to the replacement of certain old stock with new ones, an increase of 134 seats in the upper class and 1,219 seats in the lower class accommodation on the metre gauge was effected.

East Indian Railway.—The fitting of coat hooks in latrines of intermediate and third class coaches was continued and external train lighting was introduced as an experimental measure. Improved water supply was also arranged for in coaches.

Great Indian Peninsula Railway.—22 first and second class bogie composites with servants, 11 third brake and luggage bogies, 2 restaurant cars and 112 combined parcel and motor four-wheeled vehicles were built. The first and second class composites and the third, brake and luggage vehicles were built to standard designs, approved by the Railway Board and each first and second composite was provided with adequate fans and lights for the comfort of passengers. Adequate lighting arrangements were made in the third, brake and luggage vehicles and all the servants' compartments were also provided with latrines. The year marked the introduction of the dynamometer car on the railway.

Jodhpur Railway.—14 goods brake vans were fitted with two side light lamps each, 5 carriages were provided with overhead water tanks in latrines, 24 latrines of carriages were enlarged and 19 carriages were fitted

with electric lights in latrines, in addition to 4 latrines in two carriages which were altered to provide a minimum floor area of 12 square feet each. Break down van was electrically equipped.

His Exalted Highness the Nizam's State Railway.—The flat flame gas burners in a number of metre gauge third class carriages were replaced by incandescent burners. Hooks and corner shelves were provided in the latrines of a few third class carriages.

North Western Railway.—Upholstering of seat cushions of higher class carriages with imitation leather, when the existing canvas cushions required renewing and provision of improved wider type latrines with higher capacity water tanks in lower class carriages continued to be carried out. The conversion of passenger stock from gas to electric lighting was practically completed. Special attention was also given to the following :—

(*a*) Provision of standard light fittings in lower class stock.

(*b*) Improvement in lighting arrangements in postal vehicles.

(*c*) Improved lighting and fan arrangements in dining cars.

One dining car was equipped with special lighting arrangements of an entirely new design and fans of a rotating type designed to give an efficient distribution of air were installed as an experimental measure. Latrines were provided in the servants' compartments of 100 upper class vehicles. Shelves were fitted in the latrines of 105 carriages and latrines of 111 other carriages were improved.

Rohilkund and Kumaon Railway.—The roofs and upper half sides of all third class carriages were painted white and the lower half grey, thus improving the lighting effect considerably. The latrines in all third class carriages were provided with hooks. Four-wheeled third class carriages without latrine accommodation, which were running on branch line trains were replaced with six-wheelers with latrines and more comfortable accommodation.

South Indian Railway.—3 bogie first and second composites for the broad gauge and 23 bogie third class and 2 bogie dining cars for the metre gauge sections of this railway as also 8 bogie carriages for the Nilgiri Railway were constructed and placed in service, the carriages having all been built to the latest standard designs and provided with all up-to-date fittings and appliances to afford all necessary conveniences to passengers. Separate accommodation for ladies was provided in 28 broad gauge and 9 metre gauge carriages. Indication boards capable of being suitably illuminated at night were provided on the outside of the women's compartments of 28 broad gauge and 54 metre gauge carriages. 12 metre gauge and 3 broad gauge mail vans were provided with fire extinguishers. Five electric fans were fitted in the metre gauge third class tourist carriage. Night lights were provided in the upper class compartments of 25 broad gauge carriages. Additional steps were provided in 41 broad gauge bogie third class carriages. For the inauguration of the electric train service on the Madras suburban area, 17 articulated multiple units were obtained and placed in service, each unit consisting of 3 coaches mounted on 4 bogies, the central carriage being motor coach and the two end ones trailer coaches.

Supply of drinking water.

Assam Bengal Railway.—Drinking water was supplied to passengers from taps, earthen pots and filters and supplies of chlorogen were given to Station Masters for the purpose of chlorinating water stored for distribution to passengers. One tube well and one ordinary well were sunk at Habibganj and at Roha stations respectively. Permanent arrangement for supply of water to passengers was made at Senchoa and the existing water supply arrangement at Mariani platform was improved. A ground tank was also excavated at Silghat town.

Bengal and North Western Railway.—During the hot season 91 extra watermen were employed in addition to the permanent strength of 166 men. The drinking water hydrants at Samastipur were extended and additional

portable water tanks of approved design were provided on platforms at several stations.

Bengal Nagpur Railway.—181 permanent watermen and 88 temporary watermen for the hot weather were in service on the 31st March, 1932. At various stations two-wheeled receptacles were provided to watermen to enable them to supply clean and cool drinking water to the travelling public. Water storage shelters were also provided at many stations.

Bombay, Baroda and Central India Railway.—With a view to arranging a better supply of cool drinking water to the public, Hindu watermen were concentrated at large stations where trains stop for 10 minutes or more. It was found easier to keep the water cool at a station than in drums on running trains. The old arrangement of employing travelling watermen on all passerger trains, in addition to the number of watermen and bhisties employed at stations all the year round, continued on the metre gauge system. Additional watermen and bhisties were also employed during the hot weather. One pipe line and water tap were provided at Vijapur platform and one water hut was provided at Hissar.

Eastern Bengal Railway.—The work of sinking tube wells was in progress at Karadah, Putimari, Dum Dum Cantonment and Bongaigaon. Improved installations were made at Baruipur and Muladuli. The collapsed well at Rajendrapur was replaced.

East Indian Railway.—A drinking water tap was provided at Monghyr. As a permanent measure Hindu and Mahomedan watermen were employed at stations to supply water to passengers. During the hot weather months additional Hindu watermen and bhisties were posted at central points. At important stations, wooden cages were fixed in cool spots for the purpose of placing earthen ghurras containing cool water for the travelling public.

Great Indian Peninsula Railway.—Two shelters for earthen water pots were provided at Wardha and one at Sholapur.

Madras and Southern Mahratta Railway.—Permanent watermen were employed at 39 stations and temporary watermen for hot weather at 54. Water taps were provided at 89 stations and water taps and watermen at 73 stations.

North Western Railway.—Extra water taps were provided at Naurang Serai and Sonepat stations. Eleven tube wells and hand pumps for supply of pure drinking water were provided at a few stations. Wherever necessary, extra watermen were posted at stations during the hot weather. Hand barrows for water were brought into use at principal stations. Travelling watermen were appointed on Hyderabad Badin section as an experimental measure which proved a success. Travelling watermen were appointed to run on day passenger trains on certain sections to supply water to passengers.

Rohilkund and Kumaon Railway.—Water carts for supplying water to passengers have been provided at the following stations :—

Bareilly City	1	Pilibhit	1
Mailani	1	Sitapur	1
Lucknow City	2		

South Indian Railway.—New hydrants were provided at Madras Beach and Tambaram, hygenic hydrants at Erode Junction. One 500-gallon capacity drinking water tank was installed in place of a hydrant at Tiruvannamalai.

Restaurant Car Services and Refreshment Rooms.

Assam Bengal Railway.—One restaurant car for first and second class passengers continued to run on the Assam Mail trains between Lumding and Manipur Road. Though there were no separate refreshment rooms for Hindus and Mahommedans, yet at some of the stalls at important stations, sufficient facilities were provided for these passengers to obtain meals.

Bengal and North-Western Railway.—The refreshment rooms at Gorakhpur were remodelled and refurnished with a view to afford better

accommodation and greater facilities. Four new refreshment rooms for Hindus and Mahommedans were opened during the year at Thana Bihpur, Gorakhpur, Aunrihar and Samastipur.

Bombay, Baroda and Central India Railway.—The popularity gained in previous years by the arrangements for providing hot meals for Hindus and Mahommedans on certain broad gauge Express trains was maintained.

On the metre gauge, a bogie combined first, second and Dinner (of European style) ran daily on the main line mail trains between Ajmer and Ahmedabad, and on the express trains between Delhi and Ahmedabad. A restaurant car was also attached to the mail trains daily between Delhi and Rewari, during the cold weather from October to March. A refreshment room for Hindus was provided at Viramgam, while the Mahommedan refreshment room at Bombay Central was closed for want of sufficient business.

Burma Railways.—There are 20 Refreshment Rooms for the use of the travelling public generally including the Ferry Steamer between Amarapura Shore and Sagaing under operation. The Zibingyi and Kume Road Tea rooms were closed down during the year.

East Indian Railway.—For want of sufficient patronage from the public, four Mahommedan refreshment rooms were converted into tea stalls. One new Mahommedan refreshment room was opened.

Great Indian Peninsula Railway.—The restaurant car services which were in force during 1930-31 for the public were generally in use with only very minor alterations during the year under review. The refreshment room for the general public at Damoh was closed down as it was not sufficiently patronised.

Jodhpur Railway.—Dining cars were run on the Sind Mail between Marwar Junction and Balotra and Gadra Road and Hyderabad (Sind) on week days and between Marwar Junction and Hyderabad (Sind) on Saturdays.

Madras and Southern Mahratta Railway.—An Indian refreshment car service was introduced on two passenger trains, running between Madras and Bangalore and the car service which was running on two trains between Madras and Cuddapah was discontinued. An Indian refreshment room was opened at Arsikere station bringing the total number of Indian refreshment rooms to 43. Out of these, 7 were for the exclusive use of Mahommedans, 1 for Christians and 35 for the travelling public generally.

North Western Railway.—Dining car service was continued on the popular mail trains and was extended to the Frontier Mail between Lahore and Peshawar. Vending cars running on Peshawar-Howrah express between Rawalpindi and Jullundur City were fairly popular. One refreshment room for Hindus and one for Mahommedans were opened at Khanpur and one for general travelling public at Killa Saifulla. One refreshment room for the general public at Reti was closed and a tea stall was provided in its stead. The refreshment room at Kalabagh ghat was also closed on the opening of the bridge.

South Indian Railway.—One European refreshment room was opened at Trivandrum Central bringing the total to 35. An Indian buffet and an Indian refreshment room were opened at Trivandrum Central and Vriddhachalam respectively. The Indian light refreshment rooms at Palghat and Negapatam were closed. The total number of Hindu and Mahommedan refreshment rooms at the close of the year was 29 and 6 respectively.

Vendors' Stalls.

Assam Bengal Railway.—At 54 stations stalls were in use.

Bengal and North-Western Railway.—A vendor's stall at Samastipur and a tea stall at Muzaffarpur were erected for the use of Hindus and Mahommedans thus bringing the total number of stalls to 56.

Bombay, Baroda and Central India Railway.—The Hindu refreshment room at Bombay Central was converted into a light refreshment stall, while a new refreshment stall for Indians was provided at Indore.

East Indian Railway.—A new stall was provided at Ondal and improvements to those at Laksar and Dinapore were made.

Great Indian Peninsula Railway.—The number of stations at which stalls were provided was 120.

Jodhpur Railway.—The number of stalls has been increased by one at Marwar Pali.

Madras and Southern Mahratta Railway.—One new stall was opened at Diguvamitta, bringing the total to 119.

North Western Railway.—One tea stall was opened at Bhakkar and improvements were made to the existing stalls at Lyallpur.

South Indian Railway.—Fruit and tea stalls of an improved type were constructed at Madras Beach and a fruit stall at Trichinopoly Junction.

Waiting Rooms for upper class passengers. Waiting Halls for third class pssengers. Benches.

Assam Bengal Railway.—A waiting room for the accommodation of first and second class passengers was constructed at Golaghat station and a bath room was added to the first and second class waiting room at Gauhati. A new waiting hall for third class passengers was provided at Golaghat station. Three masonry benches were placed in the third class waiting hall at Golaghat station and additional benches were provided in the waiting rooms of Jamunamukh and Jalsuka stations.

Bengal and North-Western Railway.—Separate waiting rooms for first, second and intermediate class passengers as well as one intermediate class ladies waiting room were constructed at Gorakhpur. The newly built waiting rooms at Gorakhpur have been refurnished with superior furniture and up-to-date water closets, baths, shower baths and automatic flush urinals. At Janakpur Road the third class waiting hall was extended and an Indian ladies waiting room was provided. A new third class waiting hall with separate accommodation for ladies was opened at Samastipur. Four double seated platform benches each at Barauni Junction and Gonda station respectively, two double seated platform benches each at Muzaffarpur and Samastipur and one wooden bench at Aunrihar Junction platform were provided. One more bench was added to the third class passenger hall at Samastipur.

Bengal Nagpur Railway.—A new waiting hall was built for third class passengers at Robertson station. In most of the halls and platforms at stations cement benches were in use.

Bombay, Baroda and Central India Railway.—In addition to extending the existing third class waiting halls at Vishwamitri, Hathuran, Ranoli, Mahalakshmi and Agra Fort, new waiting halls for third class passengers were provided at Varnama, Itola, Unhal, Ode, Ambliyasan, Vasan and Panchat and also at Vishwamitri. The flooring of the third class waiting halls was also repaired at Dasalwada and Kathlal. Fifteen additional wooden benches were provided at the following stations :—

Vishwamitri	2	Ranoli	2
Hathuran	1	Unhal	1
Varnama	2	Ode	4
Itola	3		

Eastern Bengal Railway.—New waiting halls for third class passengers were provided at Bagerhat College, Abdulpur, Raninagar and Dum Dum Junction.

Esat Indian Railway.—New waiting halls were built at Ondal, Jherriah, Jaunpur and Unao. 8 additional benches on the platforms at Lucknow, 1 at Cawnpore Bridge, 1 at Mewa Nawada, 3 at Bareilly and 1 at Dalpatpur were placed during the year.

Great Indian Peninsula Railway.—Waiting rooms for first and second class passengers were provided at Balharshah. Extensions to the existing third class waiting halls were carried out at Pandurna and Palasner and new third class waiting halls were provided at Balharshah, Bhuteshwar,

Chikni Road, Nagardeola, Summit and Waghoda. Additional benches were provided during the year as detailed below :—

(i) *at station platforms*—

Govandi	2	Wardha	6
Mankhurd	2		

(ii) *at waiting halls*—

Balharshah	5	Chikni Road	4
Dhanori	4	Pimperkhed	4
Summit	4	Waghoda	5

Jodhpur Railway.—One bench was provided at Bakra Road.

Madras and Southern Mahratta Railway.—Extensions to the existing third class waiting halls were completed at Vetapalemu, Jalarpet, Sullurupeta, Singarayakonda, Talamanchi, Nayudupet and Repalle. A new waiting hall for third class passengers was also built at Minchnal.

North Western Railway.—Waiting rooms for first and second class passengers were provided at Nok-Kundi and Gujranwala Town stations. Wooden cubicles were provided for the first class retiring room at Rawalpindi. Extension to third class waiting hall was carried out at Badhomalhi and new halls for third class passengers were constructed at Jessar and Gujranwala. Two additional benches each were provided at Khairpur Mirs and Tharushah station platforms and eight, four and five additional benches respectively were placed in the waiting halls at Kotri, Jessar and Alhar stations.

Rohilkund and Kumaon Railway.—Four wooden benches each were provided at the platforms of Lucknow City and Lucknow Junction stations.

South Indian Railway.—Additional waiting rooms for first and second class passengers were provided at Madras Beach, Madras Fort and Salem Town stations and a new waiting room was constructed at Pdukad. Waiting halls for third class passengers at Salem Junction and Salem Town were extended and new halls constructed at Palni, Tiruchendur, Erode, Salem Market, Chromepet, Seydunganallur, Nallur Road, Madras Beach, and Madras Fort. The platforms of the latter two stations were roofed. 25 benches at Erode, 1 at Seydunganallur, 2 at Tenkasi, 2 at Madras Fort and 4 sets (one set consisting of 2 benches back to back) each at Madras Beach, Madras Egmore and Tambaram, were provided.

Opening of new stations and city booking offices.

Assam Bengal Railway.—A new station was opened at Rangapahar.

Bengal Nagpur Railway.—Sadashibpur passenger halt on the Talcher branch was opened for passenger traffic and Bijulia passenger halt was converted into a flag station.

Bombay, Baroda and Central India Railway.—The flag stations at Magnad, Dantala, Nandarkha, Nahiar, Sahnabli and Churaman Nagri were opened and a pucca booking office was constructed at Panchot in place of the wagon body in use.

Burma Railways.—The following four stations were opened during the year—Hto-Pu, Paywet—Seik-Kon, Mayan and Nansiaung.

Eastern Bengal Railway.—No new city booking office was opened. The city booking office of the railway in the Bentick Street was amalgamated with that of the East Indian Railway city booking office and so there is now a joint office for both railways in Bentick Street for booking of passengers, parcels and luggages.

East Indian Railway.—Only one station named Jarangdih on the Gomoh-Barkakhana Section was opened for public passenger traffic. Halting places were provided for omnibus services on the Barwadih-Sone East Bank, Lucknow Haidergarh, Balamau-Sitapur Cantonment, Rosa-Sitapur City and Unao-Madhoganj Sections.

Great Indian Peninsula Railway.—As an experimental measure, a halt station named Miogaon was opened for booking of passengers and their luggage to and from stations on the Pachora-Jamner Railway only.

Madras and Southern Mahratta Railway.—Sholapur Town booking office was closed.

His Exalted Highness the Nizam's State Railway.—New station buildings were constructed at Seethapalmundi and Chittiagidda. Goods sheds were constructed at Hassanparthi Road, Oopal, Jamekunta, Pothapalli, Ramagundan and Mancherial. High level platform and roadway were constructed at Hussain Sagar Junction.

North Western Railway.—Paror, Samloti and Anur Bharmar stations were opened for local booking of passengers and luggage over the North Western Railway and goods traffic over the Kangra Valley section. In addition, Walton Training School and Gujranwala Town stations were opened for public traffic. One sub-booking office was opened at the end of Hall Gate foot over-bridge at Amritsar for the booking of passengers only.

South Indian Railway.—Chromepet was opened between Pallavaram and Tambaram.

92. Accidents.—(*a*) The following table shows the number of persons killed and injured in accidents on Indian Railways, apart from accidents in railway workshops, in 1930-31 and 1931-32 :—

Cause.	Killed.		Injured.	
	1930-31.	1931-32.	1930-31.	1931-32.
A.—Passengers.				
In accidents to trains, rolling-stock, permanent-way, etc.	12	8	140	93
In accidents caused by movements of trains and railway vehicles exclusive of train accidents.	325	245	881	808
In accidents on railway premises in which the movement of trains, vehicles, etc., was not concerned.	...	2	16	11
Total .	337	255	1,037	912
B.—Railway Servants.				
In accidents to trains, rolling-stock, permanent-way, etc.	25	16	132	157
In accidents caused by movements of trains and railway vehicles exclusive of train accidents.	282	201	1,827	1,819
In accidents on railway premises in which the movement of trains, vehicles, etc., was not concerned.	44	43	4,659	5,467
Total .	351	260	6,618	7,443
C.—Other than passengers and railway servants.				
In accidents to trains, rolling-stock, permanent-way, etc.	71	32	96	62
In accidents caused by movements of trains and railway vehicles exclusive of train accidents.	2,397	2,322	735	736
In accidents on railway premises in which the movement of trains, vehicles, etc., was not concerned.	24	19	61	47
Total .	2,492	2,373	892	845
Grand Total .	3,180	2,888	8,547	9,200

(*b*) Of the 2,888 persons killed, 1,863 were trespassers; 394 were reported to be suicides and 64 were killed on railway premises otherwise than during the movement of trains, vehicles, etc. The total number of persons killed in 1931-32 was 292 less than in the previous year. The number of passengers killed decreased by 82 and of passengers injured by 125.

(*c*) The following statement shows the number of passengers killed and injured on all railways during each of the last 5 years :—

Year.	Passengers.	
	Killed.	Injured.
1927-28	387	1,179
1928-29	418	1,368
1929-30	358	1,126
1930-31	337	1,037
1931-32	**255**	**912**

(*d*) On Class I Railways the number of railway servants killed in accidents which occurred during the movement of trains and railway vehicles, exclusive of train accidents, decreased by 80 and the number injured by 2. The following table analyses the main causes of these accidents :—

Cause.	Killed.		Injured.	
	1930-31.	**1931-32.**	1930-31.	**1931-32.**
Misadventure or accidental . . .	187	**107**	1,550	**1,567**
Want of caution or misconduct on the part of the injured person.	80	**75**	186	**164**
Want of caution or breach of rules, etc., on the part of servants other than the person injured.	7	**12**	30	**29**
Defective apparatus or system of working, dangerous places, dangerous condition of work or want of rules or systems of working.	...	...	1	**5**
Total .	274	**194**	1,767	**1,765**

(*e*) The following statement analyses the accidents which occurred during the last two years, grouped under the principal causes. A statement showing the accidents in greater detail for each railway will be found in Appendix D of Volume II of this report :—

	1930-31.	1931-32.
1. Running over cattle	8,861	8,790
2. Accidents due to failure of couplings and draw gear	3,100	3,575
3. Derailments not involving passenger trains .	4,176	3,291
4. Accidents due to failure of engines owing to faulty material, workmanship and operation arising from the working of the running staff	2,483	1,825
5. Accidents due to failure of engines owing to faulty material and workmanship in the Mechanical Department . . .	712	577
6. Broken rails	415	306
7. Derailment of passenger trains . . .	369	294
8. Running over obstructions on the line other than those at level crossings . . .	222	168
9. Fires in trains or at stations or bridges .	173	166
10. Collision involving goods trains or goods vehicles	222	165
11. Flooding of permanent way . . .	238	136
12. Attempted train wrecking	145	122
13. Train wrecking		32
14. Trains running over obstructions or vehicles at level crossings	104	107
15. Accidents due to failure of axles . . .	90	86
16. Land slips	87	69
17. Passenger trains running in the wrong direction through points but not derailed.	96	68
18. Collisions involving passenger trains . .	80	65
19. Collisions between light engines . . .	53	35
20. Accidents due to failure of tyres or wheels .	27	17
21. Accidents due to failure of brake apparatus .	23	14
22. Failure of bridges or tunnels . . .	9	7
23. Miscellaneous	616	404
TOTAL .	22,301	20,319

There was a decrease of 1,982 in the total number of accidents as compared with the previous year. The largest number of accidents still comes under the head " Running over cattle " (43 per cent. of the whole), followed by " Accidents due to failure of couplings and draw-gear " (18 per cent.), " derailments not involving passenger trains " (16 per cent.), " accidents due to failure of engines owing to faulty working of the running staff, etc." (9 per cent.) and " accidents due to failure of engines owing to faulty material, etc." (3 per cent.).

With the exception of accidents under the heads " failure of couplings and draw gear ", " attempted train wrecking ", " train wrecking " and " trains running over obstructions or vehicles at level crossings ", all other heads show a decrease compared with the previous year. The number of accidents classed under " attempted train wrecking and train wrecking " increased from 145 in 1930-31 to 154 in 1931-32.

93. Before concluding our account of railway matters, mention of the more serious accidents that occurred on the railways during the year under review might be included. These amounted to 11 as against 9 during the year 1930-31 three of which were due to the activities of train wreckers.

(1) On the 6th of April, 1931, *No. 83 Up passenger train* was derailed at mile 135/7 between Lalru and Ghaggar on the Ambala-Kalka section of the North Western Railway. The derailment was caused by the removal of a rail from the inside of a curve. One passenger and the engine crew received minor injuries. The engine and 4 bogie coaching vehicles were damaged and damage was also caused to the track.

(2) On the night of 11th-12th May, 1931, *28 Down Sirajganj Ghat Calcutta passenger train* was derailed between Dilpashar and Saratnagar on the Eastern Bengal Railway by the removal of fastenings from a rail in the track. Nine passengers were slightly injured. The culprits could not be traced.

(3) On the 1st June, 1931, at about 23·7 hours, *3 Up Mandalay Mail* was derailed at mile 116/10 between Penwegon and Tawgywe-In on the Rangoon Mandalay main line of the Burma Railways. The accident was caused by disconnecting both joints of a rail which was also slewed out of line and lifted on to a fishplate resting on the sleeper. Two passengers were seriously injured and 8 others received minor injuries, considerable damage being done to the rolling stock.

The other accidents were :—

(4) On the 13th April, 1931, at 5·34 hours, a passenger train collided with a motor bus at level crossing No. 8 within station limits of Sargodha on the branch line section Sargodha to Hundewali of the North Western Railway. Of the persons travelling in the motor bus, one was killed, one was seriously injured and 9 other received minor injuries. The motor bus was wrecked, slight damage being done to the train engine.

(5) On the 24th April, 1931, at about 16 hours, *136 Down local mixed* derailed at mile 326/11 between Thamya and Le-Ein on the Burma Railways. Three passengers received minor injuries and a good deal of damage was done to the rolling stock, and slight damage to the track.

(6) On the 7th July, 1931, at about 10·30 hours, *No. 83 Up passenger train* derailed on a curve at mile 25/15/16 between Kumarhatti and Barog on the Kalka Simla Section of the North Western Railway. The engine and three bogie coaches parted from the train and fell about 100 ft. down the hill side. Five persons were seriously injured and 17 others received minor injuries. Considerable damage was done to the engine and the rolling stock.

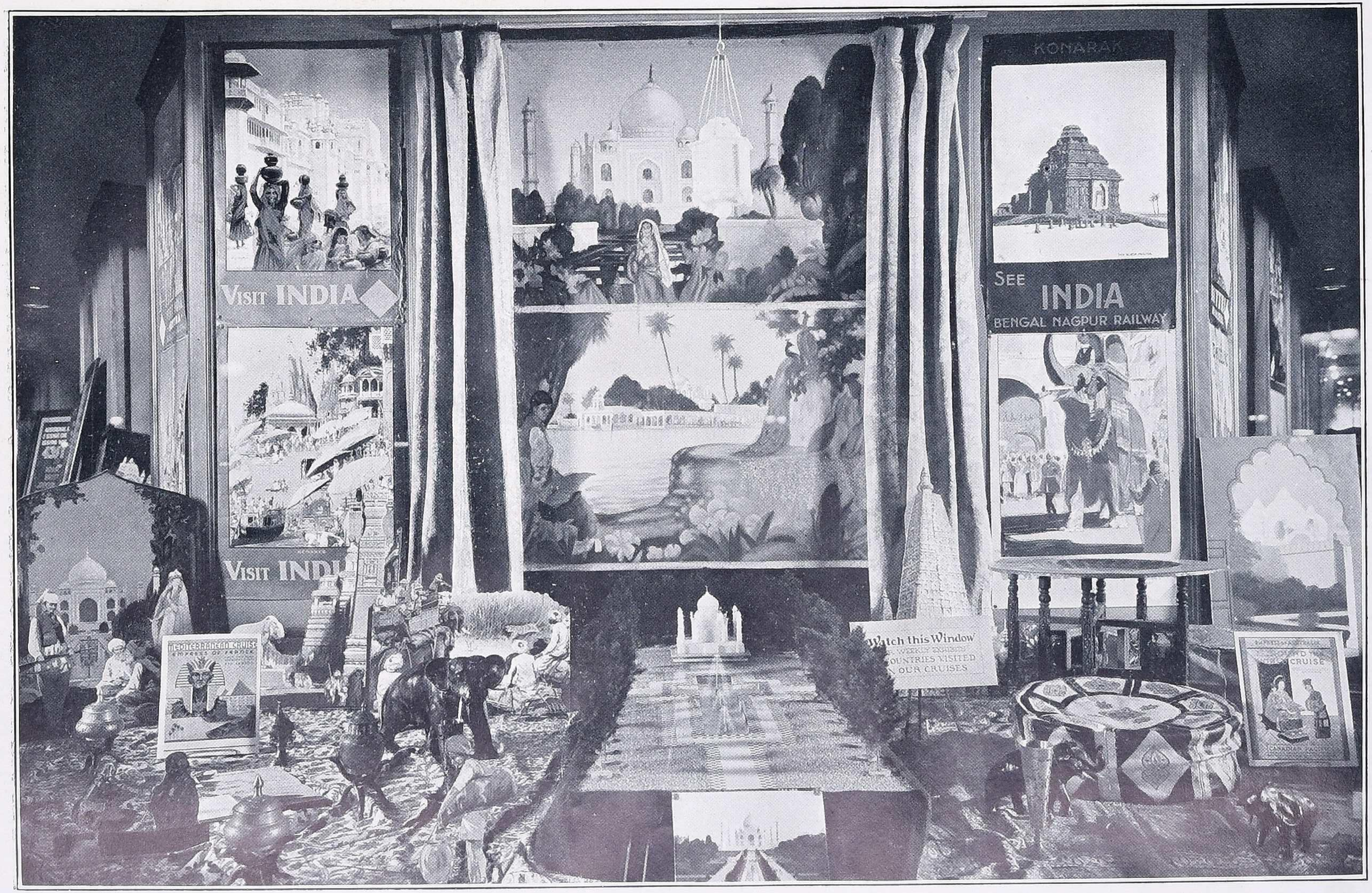
(7) On the 23rd August, 1931, at about 21·30 hours, the engine of *Down Special Goods train* fell through girder bridge No. 78 at mile 41/13 on Godhra-Anand Section of the Bombay, Baroda and Central India Railway, as the bridge had been damaged due to heavy floods. Six persons on the engine were killed and one was seriously injured, considerable damage being done to rolling stock and to the track.

(8) On the 1st September, 1931, at about 2·0 hours, *No. 6 Down Express train* from Trivandrum to Madras derailed at the Madras end of Vriddhachalam station. Three railway employees and two passengers were injured.

(9) On the 9th September, 1931, at about 4·12 hours, *No. 7 Up Dacca Mail* collided with a shunting train outside Rajbari yard on the Eastern Bengal Railway. The engines met head on and were badly damaged as also was a bogie luggage van. Thirteen persons received minor injuries.

(10) On the 28th September, 1931, at about 17·0 hours, *No. 62 Down passenger train* derailed at mile 147 between Indi Road and Lachyan stations on the Gadag-Sholapur section of the Madras and Southern Mahratta Railway. Five persons were killed and 20 injured, considerable damage being done to the permanent way and rolling stock.

(11) On the 17th December, 1931, at about 3·0 hours, *No. 33 Down Parcel and III Class passenger train* derailed at mile 43/9-10 between Kalyan and Igatpuri on the Great Indian Peninsula Railway. One passenger was killed and 6 others injured.



Indian Railways Publicity show window, U.S.A.

94. Central Publicity.—In spite of the fact that, due to unprecedented financial depression and the consequent necessity for economy, the staff of the Central Publicity Bureau had to be re-organised and reduced, the original budget of the Bureau materially cut down and its activities considerably curtailed, the results obtained from the working of the Central Publicity Bureau in 1931-32 show a very definite improvement on the figures of 1930-31. Particularly it is noticeable in the case of the bookings of tourist cars for overseas visitors. The figures of these have exceeded the figures of all previous years; even though, unfortunately, the disturbed political conditions in India had the effect of materially reducing the total number of visitors who it was originally anticipated were likely to visit this country. Nevertheless there is every indication that as soon as conditions improve, a considerable influx of tourists to this country can be expected. The film production department was closed down due to the need for economy; all the same a number of films of the Central Publicity Bureau Library were loaned to exhibitions and rural uplift campaigns. The output of photographs from the office had also to be considerably reduced due to the same reason, but the sale proceeds together with reproduction fees on those supplied to the press covered the expenses in this particular branch. The issue of pamphlets was continued during the year under review, though several departures from the old practice had to be made to effect the saving demanded by the present need for economy. In this direction special mention might be made of the policy now adopted of publishing one pamphlet covering several places of interest instead of different pamphlets for each individual place as was done before. In accordance with this policy it is the intention to divide India into circles, thus grouping a number of places under one publication. The total number of pamphlets issued during the year was 229,822 as against 318,000 distributed during the previous year.

Six new posters were produced during the year, the total number issued being 25,517. These posters have proved to be popular with the public, which is evidenced by the sum of Rs. 1,175 realised from the sale thereof to private individuals and schools.

The reciprocal exchange of pictorial posters produced by the Bureau with the more important railways of the world was continued.

A special feature of the activities of the Bureau during the year under review has been the effort to develop third class traffic. Although no large scheme was undertaken, experiments were made which have proved that the methods considered are likely to prove of great benefit to the railways. Developments on these lines on a larger scale are contemplated during the ensuing year.

95. Anti-malarial measures.—Anti-malarial measures were continued on railways with good results both to the railway staff and the Railway Administrations. On the Eastern Bengal Railway the number of new cases reported showed a decrease of 3,384 as compared with the previous year, resulting in a saving of 9,594 sick-men-days. The Medical Department of this railway co-operated with the Bengal Public Health Department in combating the threatened invasion of Calcutta and its suburbs by Anopheles Ludlowii and contributed to the successful measures which brought about the disappearance of this mosquito from Budge Budge.

The Bengal Nagpur Railway similarly reports an improvement in the incidence of malaria. At 4 stations on that railway, where up-to-date figures are available, a decrease of over 50 per cent. is recorded in the number of cases resulting in a saving of 2,420 sick-men-days. The laboratory work on this railway continues to increase and during the year 1,485 mosquito larvæ and 10,574 adult mosquitoes were identified and 964 blood films examined. Owing to financial stringency, however, malaria controls were closed at 3 stations on the Railway.

On the Great Indian Peninsula Railway the usual anti-malarial measures, which included regular inspections of railway colonies and adjoining areas with a view to a systematic destruction of larvæ, were carried out throughout the year by the Health Staff working under the supervision and control of

Health Assistants. The following table compares the statistics relating to the incidence of malaria on this railway during the last 3 years :—

Year.	Number of Malaria cases.	Percentage ratio of malaria cases to staff.	Certified days of sickness for malaria.	Average number of days of absence per employee per year for malaria.
1929-30	13,783	12·52	Figures not available	
1930-31	8,699	7·98	64,897	0 60
1931-32	7,628	8·22	62,131	0·67

Anti-malarial activities were also continued at various places on the broad gauge and the metre gauge sections of the Bombay, Baroda and Central India Railway. The number of malaria cases on this railway fell from 26,034 in 1930-31 to 24,529 in 1931-32 representing 35·1 and 33·9 per cent. of staff respectively.

On the North Western Railway joint malarial committees were organised by the military authorities at various cantonment stations with a view to the eradication of malaria and railway medical staff co-operated with the military and civil authorities in this respect. Special anti-malarial measures were taken in the Delhi area in conjunction with the civil authorities.

96. Earthquake damage.—During the year under review the Quetta Division of the North Western Railway was visited by a series of earthquake shocks between the 25th August and the 4th September; happily without loss of life. Heavy damage however to bridges, track, buildings, and to a lesser extent tunnels, was caused and communication by rail, by road and by telegraph was interrupted. In addition, throughout the whole of the Ghat sections of the Harnai and the Bolan routes, numerous fissures were formed in banks, sides of cuttings and hill sides, while masses of loosened earth became a source of actual or potential danger. The water supply at many of the stations was also affected. A rough estimate of the damage to railway property framed immediately after the occurrence placed the cost at Rs. 16 lakhs on the Bolan route and Rs. 7 lakhs on the Harnai route.

Subsequently, however, it was decided that several of the damaged buildings and bridges should not be replaced. This decision, together with certain modifications in the original scheme for repairs, enabled the cost of restoration to be considerably curtailed; and an estimate for Rs. 13·75 lakhs was sanctioned in December, 1931, the work being estimated to take about one year.

APPENDIX A.

Railway Administrations in India alphabetically arranged in three classes according to their gross earnings showing the working agencies and ownership.

[NOTE.—Railways under construction or sanctioned for construction on the 31st March 1932, are shown in italics.]

Railway system.		Lines comprised in the system.		
Name. 1	Worked by 2	Name. 3	Gauge. 4	Owned by 5
		CLASS I.—RAILWAYS.		
1. Assam Bengal	Assam Bengal Railway Company.	(a) Assam Bengal	3′ 3⅜″	State.
		(b) Chaparmukh Silghat	3′ 3⅜″	Branch line Company under guarantee terms.
		(c) Katakhal Lalabazar	3′ 3⅜″	Ditto.
		(d) Mymensingh Bhairab Bazar.	3′ 3⅜″	Branch line Company under guarantee and rebate terms.
2. Bengal and North-Western.	Bengal and North-Western Railway Company.	(a) Bengal and North-Western.	3′ 3⅜″	Company subsidized by the Government of India.*
		(b) Mashrak-Thawe	3′ 3⅜″	State.
		(c) Tirhoot	3′ 3⅜″	Do.
3. Bengal Nagpur	Bengal Nagpur Railway Company.	(a) Bengal Nagpur	5′ 6″	Do.
		(b) Anuppur-Manendragarh.	5′ 6″	Do.
		(c) Mayurbhanj	2′ 6″	Branch Line Company under rebate terms.
		(d) Parlakimedi Light	2′ 6″	Indian State.
		(e) Purulia-Ranchi	2′ 6″	State.
		(f) Raipur-Dhamtari	2′ 6″	Do.
		(g) Satpura	2′ 6″	Do.
4. Bombay, Baroda and Central India.	Bombay, Baroda and Central India Railway Company.	(a) Bombay, Baroda and Central India.	5′ 6″	Do.
		(b) Nagda-Ujjain	5′ 6″	Indian State.
		(c) Petlad-Cambay (Anand-Tarapur Section).	5′ 6″	Ditto.
		(d) Petlad-Cambay (Tarapur-Cambay Section).	5′ 6″	Ditto.
		(e) Tapti-Valley	5′ 6″	Branch line Company under rebate terms.
		(f) Bombay, Baroda and Central India.	3′ 3⅜″	State.
		(g) Ahmedabad-Parantij	3′ 3⅜″	Branch line Company under rebate terms.
		(h) Dhrangadra	3′ 3⅜″	Indian State.
		(i) Gaekwar's Mehsana	3′ 3⅜″	Ditto.
		(j) Jaipur State	3′ 3⅜″	Ditto.
		(k) Palanpur-Deesa	3′ 3⅜″	Ditto.†
		(l) Bombay, Baroda and Central India.	2′ 6″	State.
		(m) Champaner-Shivrajpur-Pani Light.	2′ 6″	Branch line Company under rebate terms.
		(n) Godhra-Lunavada	2′ 6″	Ditto.
		(o) Nadiad-Kapadvanj	2′ 6″	Ditto.
		(p) Piplod-Devgad-Baria	2′ 6″	Indian State.
		(q) Rajpipla State	2′ 6″	Ditto.
5. Burma	State	(a) Burma	3′ 3⅜″	State.

* Receives land only from Government.

† Owned jointly by Government and Palanpur Durbar.

Railway system.		Lines comprised in the system.		
Name.	Worked by	Name.	Gauge.	Owned by
1	2	3	4	5
CLASS I.—RAILWAYS—*contd.*				
6. Eastern Bengal.	State	(*a*) Eastern Bengal	5′ 6″	State.
		(*b*) Sara Sirajganj	5′ 6″	Branch line Company under rebate terms.
		(*c*) Eastern Bengal	3′ 3⅜″	State.
		(*d*) Cooch Behar State	3′ 3⅜″	Indian State.
		(*e*) Eastern Bengal	2′ 6″	State.
		(*f*) Khulna-Bagerhat	2′ 6″	Branch line Company under rebate terms.
7. East Indian	State	(*a*) East Indian	5′ 6″	State.
		(*b*) Hardwar-Dehra	5′ 6″	Branch line Company under guarantee terms.
		(*c*) South Bihar	5′ 6″	Branch line Company.
		(*d*) Cawnpore-Burhwal link.*	3′ 3⅜″	State.
8. Great Indian Peninsula.	State	(*a*) Great Indian Peninsula.	5′ 6″	Do.
		(*b*) Bhopal-Itarsi (Indian State Section).	5′ 6″	Indian State.
		(*c*) Bhopal-Ujjain	5′ 6″	Ditto.
		(*d*) Bina-Goona-Baran	5′ 6″	Ditto.
		(*e*) Dharwa-Pusad	2′ 6″	State.
		(*f*) Dhond-Baramati	2′ 6″	Branch line Company under rebate terms.
		(*g*) Ellichpur-Yeotmal	2′ 6″	Ditto.
		(*h*) Pachora-Jamner	2′ 6″	Ditto.
		(*i*) Pulgaon-Arvi	2′ 6″	Ditto.
9. Jodhpur	Indian State	(*a*) Jodhpur	3′ 3⅜″	Indian State.
		(*b*) Jodhpur-Hyderabad (British Section).	3′ 3⅜″	State.
		(*c*) Mirpur Khas-Khadro	3′ 3⅜″	Company subsidized by the Government of India.†
10. Madras and Southern Mahratta.	Madras and Southern Mahratta Railway Company.	(*a*) Madras and Southern Mahratta.	5′ 6″	State.
		(*b*) Kolar Goldfields	5′ 6″	Indian State.
		(*c*) Tenali-Repalle	5′ 6″	District Board.
		(*d*) Madras and Southern Mahratta.	3′ 3⅜″	State.
		(*e*) Alnavar-Dandeli (Provincial).	3′ 3⅜″	Do.
		(*f*) Bangalore-Harihar	3′ 3⅜″	Indian State.
		(*g*) Bezwada-Masulipatam.	3′ 3⅜″	District Board.
		(*h*) Hindupur (Yesvantpur-Mysore Frontier).	3′ 3⅜″	Indian State.
		(*i*) Kolhapur State	3′ 3⅜″	Ditto.
		(*j*) Sangli State	3′ 3⅜″	Ditto.
		(*k*) West of India Portuguese.	3′ 3⅜″	Foreign Country.
11. Nizam's State	Nizam's State Railways.	(*a*) Nizam's State	5′ 6″	Indian State.
		(*b*) Bezwada Extension	5′ 6″	State.
		(*c*) Nizam's State	3′ 3⅜″	Indian State.
		(*d*) Dronachellam (Dhone)-Kurnool-British Frontier.	3′ 3⅜″	State.

* Under running power agreement the B. and N.-W. Railway Company run and haul their trains and traffic over this line.

† Receives land only from Government.

Railway system.		Lines comprised in the system.		
Name. 1	Worked by 2	Name. 3	Gauge. 4	Owned by 5
		CLASS I.—RAILWAYS—*concld.*		
12. North Western	State	(a) North Western	5′ 6″	State.
		(b) Amritsar Patti	5′ 6″	Branch line Company under rebate terms.
		(c) Bahawalnagar Fort Abbas-Rohatwali-Hotwala.	5′ 6″	Indian State.
		(d) Hoshiarpur Doab (Jullundur Mukerian).	5′ 6″	Branch line Company under rebate terms.
		(e) Hoshiarpur Doab (Phagwara-Rahon).	5′ 6″	Ditto.
		(f) Jammu and Kashmir (Indian State Section).	5′ 6″	Indian State.
		(g) Jind Panipat (Indian State Section).	5′ 6″	Ditto.
		(h) Khanpur-Chachran	5′ 6″	Ditto.
		(i) Ludhiana-Dhuri Jakhal.	5′ 6″	Ditto.
		(j) Mandra-Bhaun	5′ 6″	Branch line Company under rebate terms.
		(k) Rajpura Bhatinda	5′ 6″	Indian State.
		(l) Sirhind Rupar	5′ 6″	Ditto.
		(m) Sialkot Narowal	5′ 6″	Branch line Company under rebate terms.
		(n) Jacobabad-Kashmor	2′ 6″	Ditto.
		(o) Kalka-Simla	2′ 6″	State.
		(p) Kangra-Valley	2′ 6″	Do.
		(q) Kohat-Thal	2′ 6″	Do.
		(r) Larkana-Jacobabad	2′ 6″	Branch line Company under rebate terms.
		(s) Trans-Indus (Kalabagh-Bannu).	2′ 6″	State.
		(t) Zhob Valley	2′ 6″	Do.
13 Rohilkund and Kumaon.	Rohilkund and Kumaon Railway Company.	(a) Rohilkund and Kumaon.	3′ $3\frac{3}{8}$″	Company subsidized by the Government of India.
		(b) Lucknow-Bareilly	3′ $3\frac{3}{8}$″	State.
14. South Indian	South Indian Railway Company.	(a) South Indian	5′ 6″	Do.
		(b) South Indian	3′ $3\frac{3}{8}$″	Do.
		(c) Nilgiri	3′ $3\frac{3}{8}$″	Do.
		(d) Peralam-Karaikkal	3′ $3\frac{3}{8}$″	Foreign Country.
		(e) Podanur-Pollachi	3′ $3\frac{3}{8}$″	District Board.
		(f) Pondicherry	3′ $3\frac{3}{8}$″	Foreign Country.
		(g) Shoranur-Cochin	3′ $3\frac{3}{8}$″	Indian State.
		(h) Tinnevelly-Tiruchendur.	3′ $3\frac{3}{8}$″	District Board.
		(i) Travancore (British Section).	3′ $3\frac{3}{8}$″	State.
		(j) Travancore (Indian State Section).	3′ $3\frac{3}{8}$″	Indian State.
		(k) Morappur-Hosur	2′ 6″	State.
		(l) Tirupattur-Krishnagiri.	2′ 6″	Do.
		CLASS II.—RAILWAYS.		
1. Barsi Light	Barsi Light Railway Company.	Barsi Light	2′ 6″	Company subsidized by the Government of India.*
2. Bengal Dooars	Bengal Dooars Railway Company.	(a) Bengal Dooars	3′ $3\frac{3}{8}$″	Company subsidized by District Board.
		(b) Bengal Dooars Extensions.	3′ $3\frac{3}{8}$″	Company subsidized by the Government of India.*
3. Bhavnagar State	Indian State	Bhavnagar State	3′ $3\frac{3}{8}$″	Indian State.
4. Bikaner State	Ditto	Bikaner State	3′ $3\frac{3}{8}$″	Ditto.

* Receives land only from Government.

Railway system.		Lines comprised in the system.		
Name.	Worked by	Name.	Gauge.	Owned by
1	2	3	4	5
CLASS II.—RAILWAYS—*concld.*				
5. Darjeeling Himalayan	Darjeeling Himalayan Railway Company.	(a) Darjeeling Himalayan	2′ 0″	Company subsidized by Local Government.
		(b) Darjeeling Himalayan Extensions.	2′ 0″	Branch line Company under rebate terms.
6. Dibru-Sadiya . .	Assam Railways and Trading Company.	(a) Dibru-Sadiya . .	3′ 3⅜″	Company subsidized by Local Government.
		(b) Ledo and Tikak-Margherita Colliery.	3′ 3⅜″	Unassisted Company.
7. Gaekwar's Baroda State.	Indian State . .	(a) Gaekwar's Baroda State.	2′ 6″	Indian State.
		(b) Bodeli Chhota Udaipur.	2′ 6″	Ditto.
8. Gondal . . .	Ditto . .	(a) Gondal . . .	3′ 3⅜″	Ditto.
		(b) Jetalsar Rajkot .	3′ 3⅜″	Ditto.
		(c) Khijadiya Dhari .	3′ 3⅜″	Ditto.
9. Howrah-Amta Light .	Howrah-Amta Light Railway Company.	Howrah-Amta Light .	2′ 0″	Company subsidized by District Board.
10. Jamnagar and Dwarka	Jamnagar and Dwarka Railway Company.	(a) Jamnagar . .	3′ 3⅜″	Indian State.
		(b) Jamnagar-Dwarka .	3′ 3⅜″	Branch line Company under guarantee and rebate terms.†
		(c) Okhamandal . .	3′ 3⅜″	Indian State.
11. Junagad State . .	Indian State . .	Junagad State . .	3′ 3⅜″	Ditto.
12. Morvi . . .	Ditto . . .	Morvi	3′ 3⅜″	Ditto.
13. Mysore . . .	Ditto . .	(a) Mysore . . .	3′ 3⅜″	Ditto.
		(b) Bangalore-Chik Ballapur Light.	2′ 6″	Company guaranteed by Indian State.
		(c) Kolar District . .	2′ 6″	Indian State.
		(d) Tarikere-Narasimharajapura Light.	2′ 0″	Ditto.
14. Shahdara (Delhi) Saharanpur Light.	Shahdara (Delhi) Saharanpur Light Railway Company.	Shahdara (Delhi) Saharanpur Light.	2′ 6″	Company subsidized by the Government of India.*
CLASS III.—RAILWAYS.				
1. Ahmadpur-Katwa .	Ahmadpur-Katwa Railway Company.	Ahmadpur Katwa .	2′ 6″	Branch line Company under guarantee terms.
2. Arrah-Sasaram Light.	Arrah-Sasaram Light Railway Company.	Arrah Sasaram Light .	2′ 6″	Company subsidized by District Board.
3. Bankura-Damoodar River.	Bankura-Damoodar River Railway Company.	Bankura Damoodar River.	2′ 6″	Branch line Company under guarantee terms.
4. Baraset-Basirhat Light	Baraset-Basirhat Light Railway Company.	Baraset Basirhat Light .	2′ 6″	Company subsidized by District Board.
5. Bengal Provincial .	Bengal Provincial Railway Company.	(a) Bengal Provincial .	2′ 6″	Unassisted Company.
		(b) Dasghara Jamalpurgunj.	2′ 6″	Branch line Company under guarantee terms.
6. Bukhtiarpur-Bihar Light.	Bukhtiarpur-Bihar Light Railway Company.	Bukhtiarpur Bihar Light	2′ 6″	Company subsidized by District Board.
7. Burdwan-Katwa .	Burdwan-Katwa Railway Company.	Burdwan Katwa . .	2′ 6″	Branch line Company under guarantee terms.
8. Cutch State . .	Indian State . .	Cutch State . . .	2′ 6″	Indian State.

* Receives land only from Government.
† Financed on rebate terms given by the Jamnagar Durbar.

Railway system.		Lines comprised in the system.		
Name. 1	Worked by 2	Name. 3	Gauge. 4	Owned by 5
		CLASS III.—RAILWAYS—*concld.*		
9. Dehri-Rohtas Light .	Dehri-Rohtas Light Railway Company.	Dehri-Rohtas Light .	2′ 6″	Company subsidized by the Government of India.
10. Dholpur State . .	Indian State . .	Dholpur State . .	2′ 6″	Indian State.
11. Futwah-Islampur .	Futwah-Islampur Light Railway Company.	Futwah-Islampur . .	2′ 6″	Branch line Company under guarantee terms.
12. Gwalior Light . .	Indian State . .	Gwalior Light . .	2′ 0″	Indian State.
13. Howrah-Sheakhala-Light.	Howrah-Sheakhala-Light Railway Company.	Howrah-Sheakhala Light	2′ 0″	Company subsidized by District Board.
14. Jagadhri Light .	Jagadhri Light Railway Company.	Jagadhri Light . .	2′ 0″	Unassisted Company.
15. Jessore-Jhenidah .	Jhenidah Railway Syndicate.	Jessore-Jhenidah . .	2′ 6″	Ditto.
16. Jorhat (Provincial) .	River Steam Navigation Company and India General Navigation and Railway Company.	Jorhat (Provincial) .	2′ 0″	State.
17. Kalighat-Falta .	Kalighat-Falta Railway Company.	Kalighat-Falta . .	2′ 6″	Branch line Company under guarantee terms.
18. Kulasekarapatnam Light.	East India Distilleries and Sugar Factories.	Kulasekarapatnam Light	2′ 0″	Unassisted Company.
19. Matheran Light .	Matheran Steam Tramway Company.	Matheran Light . .	2′ 0″	Company subsidized by the Government of India.*
20. Porbandar State .	Indian State . .	Porbandar State . .	3′ 3⅜″	Indian State.
21. Tezpore-Balipara Light	Tezpore-Balipara Steam Tramway Company.	Tezpore-Balipara Light .	2′ 6″	Company subsidized by District Board.
22. *Tirupati-Tiruchanur Light.*	Tirupati-Tiruchanur Light Railway Company.	*Tirupati-Tiruchanur Light*	2′ 0″	Unassisted Company.
23. Trivellore Light .	T. Namberumal Chetty and Sons.	Trivellore Light . .	2′ 0″	Ditto.
24. Udaipur-Chittorgarh .	Indian State . .	Udaipur-Chittorgarh .	3′ 3⅜″	Indian State.

* Receives land only from Government.

APPENDIX B.

Notes on the relation of the Government to Railways in India.

(Reprinted from the Report for 1914-15 and brought up to date.)

Diversity of Relations between the State and Railways.—One of the special features of the Indian Railway system is the diversity of conditions that prevails in the relation of the State to the various lines in respect of ownership and control. Of the important lines situated in British India or in which the Government of India is interested, five [the North Western,* Eastern Bengal, East Indian (with which has been amalgamated the Oudh and Rohilkhand Railway from the 1st July 1925), Great Indian Peninsula and Burma Railways] are owned and worked by the State; five (the Bombay, Baroda and Central India, Madras and Southern Mahratta, Assam-Bengal, Bengal-Nagpur and South Indian) are owned by the State but worked on its behalf by companies enjoying a guarantee of interest from the Government; two important lines (the Bengal and North-Western, and Rohilkund and Kumaon) and many of less importance are the property of private companies, some being worked by the owning companies and some by the State or by the companies that work State-owned systems; several minor lines are the property of District Boards or enjoy a guarantee of interest granted by such Boards.

The diversity of conditions is in certain respects less important than might at first appear for the following reasons:—

The Government of India exercises under the Indian Railways Act, 1890, in respect of all railways in British India (and also, by virtue of arrangements with Indian States, in respect of certain railways passing through such States), certain general powers. Thus a railway may not be opened until a Government Inspector has certified that it has been constructed so as to comply with requirements laid down by the Government and can be used for the public carriage of passengers without danger to them. The Government of India can also, in the interest of the safety of passengers, require a railway to be closed, or the use of particular rolling-stock to be discontinued, or may prescribe conditions for the use of the railway or the rolling-stock. They can appoint a Railway Commission to investigate complaints on certain matters such as the withholding of reasonable traffic facilities or the grant of undue preference.

In addition, the Government of India (or in some cases Local Governments) exercise under the provisions of contracts detailed control over the management of all Railways in British India greatly exceeding that which is secured by the Indian Railways Act. They also have a certain financial interest in all companies in British India, and a preponderating interest in most of the Railways which are of the first importance.

History of Relations of the Government and Companies.—The main causes which have led to the present diversity of conditions in regard to the agency by which railways are managed, and the relations of the Government with the various classes of companies now in existence, are summarised in the following paragraphs:—

The first proposals for the construction of railways in India were submitted in 1844 to the East India Company in England by Mr. R. M. Stephenson, afterwards Chief Engineer of the East Indian Railway, and others; they included the construction of lines by railway companies to be incorporated for the purpose and the guarantee by the East India Company of a specified return. A contract for the construction by the East Indian Railway Company of an experimental line of 100 miles from Calcutta towards Mirzapore or Rajmehal at an estimated cost of 1,000,000*l*. was made in 1849, and a return of 5 per cent. was guaranteed by the East India Company on the Capital; and a similar contract was made in the same year with the Great Indian Peninsula Railway Company for a line from Bombay to Kalyan at an estimated cost of 500,000*l*. But the policy of entrusting generally the construction of Indian railways to guaranteed companies was not adopted until 1854 on the recommendation of Lord Dalhousie, who, in a minute, dated 20th April 1853, explained his reasons for preferring the agency of companies, under the supervision and control of the Government, to the construction of lines on behalf of the Government by its own officers. He held that the State Engineer officers would make railways as well, and possibly as cheaply, and as expedi-

* Includes the Delhi Umballa Kalka and Southern Punjab Railways which were purchased by the Secretary of State on 31st March 1926 and 1st January 1930 respectively.

tiously as companies; but that the withdrawal from other duties of the large number of officers required would be detrimental to the public interest, that the conduct of commercial undertakings did not fall within the proper functions of any Government and least of all within the functions of the Government of India, since the dependence of the population on the Government was, in India, one of the greatest drawbacks to the advance of the country, and that the country would therefore benefit by the introduction of English energy and English capital for railway purposes, with the possibility that such energy and capital would in due course be encouraged to assist in the development of India in other directions.

Old Guaranteed Railways.—The policy supported by Lord Dalhousie was adopted, and between 1854 and 1860 contracts for the construction of Railways in India were made by the East India Company, or (after 1858) by the Secretary of State for India with the East Indian, Great Indian Peninsula, Madras, Bombay, Baroda and Central India, Sind (afterwards, the Sind, Punjab and Delhi), Eastern Bengal, Great Southern of India (afterwards, when amalgamated with the Carnatic Railway Company —see below—the South Indian) and Calcutta and South-Eastern Railway Companies. Under these contracts the railway companies undertook to construct and manage specified lines, while the East India Company (or the Secretary of State for India) agreed to provide land and guaranteed interest on the capital, the rate fixed being in various cases 5, $4\frac{3}{4}$ and $4\frac{1}{2}$ per cent. according to the market rates prevailing when the various contracts were made. Half of any surplus profits earned was to be used towards repaying to the Government any sums by which it had been called upon to supplement the net earnings of any previous period in order to make good the guarantee of interest; and the remainder was to belong to the shareholders. In practically all matters of importance except the choice of staff, the companies were placed by the contracts under the supervision and control of the Government which had power to decide on the standard and details of construction; the rolling-stock to be provided, the number, time and speed of trains; the rates and fares to be charged; the expenditure to be incurred; the standard of maintenance; and the form of accounts. The railways were to be held by the companies on leases terminating at the end of 99 years, and on such termination the fair value of their rolling-stock, plant and machinery was to be paid to them. But provision was also made to enable the Government to purchase the lines after 25 or 50 years on terms calculated to be the equivalent of the companies' interest therein and also to enable the companies to surrender their lines to the Government and to receive in return their capital at par.

Early Attempts to Secure Funds for Railway Construction without a Guarantee.—An attempt to secure the construction of railways in India, on terms more favourable to the Government than those of the contracts with the original guaranteed companies, was first made in 1862, when a subsidy, but not a guarantee, was granted to the Indian Branch Railway Company which proposed to make feeders to the trunk lines in Northern India, and did actually make one such line. Similar assistance was granted later to the Indian Tramway Company, which made a short line in Madras. In 1864, the terms granted to the two companies mentioned were taken as a standard for general adoption with a view to the encouragement of similar companies. The chief provisions were that the Government, besides giving the necessary land free of costs, would grant an annual subsidy for 20 years at a rate not exceeding £100 per mile of line wih an addition in respect of large bridges costing more than £10,000. These terms failed to attract capital, and the two unguaranteed companies which had begun work found themselves after a few years unable to proceed without further assistance from the Government. Consequently, in 1867, a contract was entered into with the Indian Branch Railway Company (which soon after changed its name to the "Oudh and Rohilkhand Railway Company") by which the company was guaranteed interest at 5 per cent. per annum on the cost of certain lines to be carried out by it, on conditions similar to those laid down in the contracts of the period 1854—1860. Similarly, the Indian Tramway Company, after having been given in 1868 a guarantee of 3 per cent. per annum, went into liquidation in 1870, and became absorbed in a new company called the Carnatic Railway Company (afterwards amalgamated with the Great Southern of India Railway Company to form the South Indian Railway Company), with which the Secretary of State entered into a contract guaranteeing interest on its capital at 5 per cent. per annum. In 1869, Sir John Lawrence summed up the result of the experiment of the construction of railways by unguaranteed companies as follows:—"The Government of India has for several years been striving to induce capitalists to undertake the construction of railways in India at their own risk, and on their responsibility with a minimum of Government interference. But the attempt has entirely failed, and it has become obvious that no capital can be obtained for such undertakings otherwise than under a guarantee of interest fully equal to that which the Government would have to pay if it borrowed directly on its own account."

The attempt to encourage unguaranteed companies having thus been unsuccessful, it became necessary to decide whether the old practice of relying on guaranteed companies, of the type that had provided capital for, and had constructed, the first railways

in India, should be continued. The Government of India expressed their objections to this course. They doubted whether their power of control over such companies secured the greatest possible economy in construction. They also disliked the arrangements under which they guaranteed the interest on the capital of companies, and thus became responsible for loss on working while having only a comparatively remote prospect of profiting by the result of successful working. Two important changes were consequently made in the practice that had been followed since the beginning of railway construction in India:—

1. Arrangements were made with some of the most important of the guaranteed companies that, in lieu of the provision that half of any surplus profits was to be applied in repayment of sums advanced by the Government under the guarantee of interest, half of the surplus profits for each half-year should be the property of the Government. In consideration of this modification, the Government relinquished, in the case of three companies, the Great Indian Peninsula, the Bombay, Baroda and Central India and the Madras, its right to purchase the lines at the end of the first 25 years from the dates of the respective contracts.
2. It was decided by the Secretary of State that the time had arrived when in both raising and expending such additional capital as might be required for new lines in India, the Government should secure to itself the full benefit of its own credit and of the cheaper methods which it was expected that it would be able to use. Accordingly, for several years after 1869, the capital expenditure on railways was chiefly incurred direct by the State and no fresh contracts with guaranteed companies were made except for small extensions. Among the lines constructed or begun by State agency and from State capital between 1869 and 1880 were the Indus Valley, Punjab Northern, Rajputana-Malwa, Northern Bengal, Rangoon and Irrawady Valley and Tirhoot.

Progress in the Construction of Railways.—By the end of 1879, in about 25 years from the introduction of railways in India, 6,128 miles of railway had been constructed by companies which had expended, approximately, £97,872,000 (these figures include the Calcutta and South-Eastern and Nalhati Railways which were constructed by companies but were purchased by the Government in 1868 and 1872, respectively). By the same date 2,175 miles of railway had been constructed by the Government at a cost of £23,695,226.

Introduction of Modified Guarantee Terms.—In 1880, the necessity for great and rapid extension of the railway system was urged by the Famine Commissioners, appointed after the great famine of 1878, who estimated that at least, 5,000 miles were still necessary for the protection of the country from famine. It was held by the Government of the time that a limit was necessary on the capital borrowed annually; and it was clear that the limit fixed was not high enough to allow of such progress in railway construction as was desirable. With reference to this difficulty the Famine Commissioners remarked: "that there would be manifest advantages in giving free scope to the extension of railways by private enterprise if it were possible; and, though the original form of guarantee has been condemned, it may not be impossible to find some substitute which shall be free from its defects, and may secure the investment of capital in these undertakings without involving the Government in financial or other liabilities of an objectionable nature."

Action in the direction suggested by the Commission was taken by the formation of three companies without a guarantee (the Bengal Central in 1881 and the Bengal and North-Western and Rohilkund and Kumaon in 1882), and three new guaranteed companies (Southern Mahratta in 1882, the Indian Midland in 1885, and the Bengal-Nagpur in 1887). The Bengal and North-Western and the Rohilkund and Kumaon Railway Companies are referred to more fully, in a later paragraph. The Bengal Central Railway Company's operations were not successful at the outset, and a revised contract was entered into with the company, with effect from the 1st July 1885, under which the Secretary of State guaranteed interest at $3\frac{1}{2}$ per cent. on the company's capital the balance of net earnings remaining after payment of interest on advances by the Secretary of State and debenture capital (but not the share capital) being divided between the Secretary of State and the company in the proportions of three-quarters to the former and one-quarter to the latter. The new contract gave the Secretary of State the right to take possession of the line on the 30th June 1905, or subsequently at intervals of 10 years, on repaying the company's capital at par. The rate of interest guaranteed to the Southern Mahratta Railway Company was also $3\frac{1}{2}$ per cent.; in this case the balance of net earnings remaining after payment of interest on advances by the Secretary of State (but not on share or debenture capital) was divisible in the same way as in the case of the Bengal Central Railway Company. The guarantee to the Indian Midland and Bengal-Nagpur Railway Companies was 4 per cent.; and the Secretary of State was entitled to three-quarters of the surplus profits in excess of all interest charges. The lines constructed by the three companies last mentioned were declared to be the property

of the Secretary of State, who had the right to determine the contracts at the end of approximately 25 years after their respective dates, or at subsequent intervals of 10 years, on repaying at par the capital provided by the companies.

The Assam Bengal Railway Company was formed on similar lines in 1892, except that any surplus profits were to be divided between the Secretary of State and the company in proportion to the capital provided by each. The rate of guarantee in this case was 3½ per cent. for the first six years and thereafter 3 per cent.

The terms of guarantee given to the companies formed since 1880 have thus been much more favourable to the Government than in the case of those formed before 1869.

Termination of Contracts of the Old Guaranteed Companies.—In dealing with the guaranteed companies formed before 1869 and with those formed in 1881 and subsequently, it has been the practice (except in the cases mentioned above, when the purchase of some of the old guaranteed lines was postponed in order to secure to the Government a share in surplus profits) to use in some way or other at the earliest possible date the right reserved by the Government of terminating the contracts of the various companies. The method of making use of this right has differed in different cases. The Eastern Bengal, the Oudh and Rohilkhand, the Sind-Punjab and Delhi and the Southern Punjab lines were purchased and transferred to State management, the last two now forming part of the North Western Railway. Similarly, the Bengal Central line was purchased and made part of the Eastern Bengal Railway. The Madras and the Indian Midland lines were acquired but left, after acquisition, under the management of companies working other lines with which it was advantageous to amalgamate them. In the cases of South Indian, Bombay, Baroda and Central India, Southern Mahratta, and Bengal Nagpur, the course adopted has been to arrange for the continuance of management by the original company (or by a new company closely related to the old one), but to secure more favourable financial conditions for the State by one or more of the following methods:—reduction of the amount of capital retained by the companies in the undertakings, reduction of the rate of interest guaranteed by the State on such capital and modification in favour of the Government of the clauses relating to the division of surplus profits. This method was adopted also in regard to the East Indian and the Great Indian Peninsula Railways, but the contracts under which they were being worked having terminated on the 31st December 1924 and the 30th June 1925 respectively, the management of these lines has been taken over by the State from those dates. Similarly the management of the Burma Railways was taken over by the State on the termination of the contract with the Burma Railways Company on the 31st December 1928.

Arrangements between the Government and Companies at present.—The relations between the Government and the guaranteed companies now working railways may be summarised as follows:—

The lines that they work are the property of the State.

The greater part of the capital is the property of the Government, either through having been originally supplied by it or through the acquisition by the Government of the greater part of the companies' interests on the termination of old contracts.

When funds are required for further capital expenditure, the Government has the option either of providing them or of calling on the company to provide them. Both the Government and the company usually receive interest at a fixed rate on their capital and surplus profits are divided between the Government and the company in the various proportions provided for by the contracts. The company's share is in most cases only a small proportion of the total amount.

All the contracts are terminable at the option of the Secretary of State, at specified dates; and on termination the company's capital is repayable at par.

The administrative control exercised by the Government over the companies is as follows:—

The company is bound to keep the line in good repair, in good working condition, and fully supplied with rolling-stock, plant, and machinery; to keep the rolling-stock in good repair and in good working condition; and to maintain a sufficient staff for the purposes of the line;—all to the satisfaction of the Secretary of State.

The Secretary of State may require the company to carry out any alteration or improvement in the line, or in the working that he may think necessary for the safety of the public or for the effectual working of the line.

The Secretary of State may require the company to enter into agreements, on reasonable terms and conditions, with the administrations of adjoining railways for the exercise of running powers, for the supply to one another of surplus rolling-stock, for the interchange of traffic and rolling-stock and

the settlement of through rates, and for additions and alterations to, or the redistribution of, existing accommodation in junctions or other stations in view to their convenient mutual use.

The train service is to be such as the Secretary of State may require. In order to secure a general control over the rates quoted by companies, the Secretary of State has retained power to settle the classification of goods and to authorise maximum and minimum rates within which the companies shall be entitled to charge the public for the conveyance of passengers and goods of each class.

The company has to keep such accounts as the Secretary of State may require, and these are subject to audit by the Secretary of State.

In all other matters relating to the line the company is made subject to the supervision and control of the Secretary of State, who may appoint such persons as he may think proper for the purpose of inspecting the line, auditing the accounts, or otherwise exercising the powers of supervision and control reserved to him. In particular, the Secretary of State has the right to appoint a Government Director to the Board of the company, with a power of veto on all proceedings of the Board. All the moneys received by the company in respect of the undertaking, whether on capital or revenue account, have to be paid over to the Secretary of State.

All expenditure by the company has to be stated and submitted for the sanction of the Secretary of State.

Thus, the Government has the preponderating financial interest in the lines worked by the two classes of guaranteed companies, those formed before 1869 and retained as working agencies with reduced capital after purchase, and those formed on terms more favourable to the State after 1880; it has exceedingly wide control over the methods of working; and it has the right of taking possession of the lines at specified times on repayment at par of the capital of the companies.

Other Lines worked by Companies.—In addition to the lines referred to above, and apart from lines constructed by Branch line companies, District Boards and Indian States, two lines of some importance have been constructed by companies which receive no direct assistance by the Government, namely, the Bengal and North-Western Railway and the Rohilkund and Kumaon Railway. (The Rohilkund and Kumaon Railway Company was guaranteed interest at 4 per cent. during construction and received for 10 years thereafter a subsidy of Rs. 20,000 per annum. This ceased in 1894.) While, however, these companies have no guarantee or other direct payment from the Government, they derive some advantage (partly through direct patricipation in profits and partly through reduction of expenses) from the fact that the working of certain State lines has been entrusted to them, the Tirhoot Railway to the former company and the Lucknow-Bareilly Railway to the latter. Their lines can be purchased by the State in 1937 or 1942 on terms which are different in respect of the different sections of the lines, but are, on the whole, much more favourable to the companies than those provided for in the contracts with the guaranteed companies. Failing purchase in 1937 or 1942, the lines will become the property of the State in 1981 on payment of certain amounts. The general administrative control exercised by the State over these companies and the control over expenditure are similar to that which is exercised, as explained above, over guaranteed companies.

APPENDIX C.

The Organisation for Government control.

The initial policy of the Government of India for the construction and working of railways was the establishment of guaranteed railway companies of English domicile. Control over the operations of these companies was at first secured through the appointment of a Consulting Engineer of Guaranteed Railways. Some years later local Consulting Engineers were appointed for the exercise of control over guaranteed railways and over State-owned railways in the construction of which the State had been financially interested and which had been leased to companies for working. These officers combined the duties of supervision and control on behalf of the Government of India and of an Inspector under the Government of India Railway Act. The Government of India were not directly concerned with the ownership of railways until 1868 when the Calcutta and South Eastern Railway was surrendered to the Indian Government under the terms of the contract between the Secretary of State and the Company.

Owing to the Government of India having in 1869 definitely adopted the policy of direct construction and ownership of railways, a period of rapid development of railway construction ensued and it became necessary to relieve the Public Works Department Secretariat of the Government of India in some measure of the detailed control of railways. Accordingly in 1874 a State Railway Directorate was established and the greater portion of the State Railway establishment and business connected with State Railway Administration was transferred to the control of the Director of State Railways, an officer who functioned on much the same lines as the head of a department under the Government of India. The Consulting Engineer to the Government of India for State Railways was at the same time associated with him but all important matters had still to be referred to the Public Works Department. A special Deputy Secretary in the Railway Branch of the Secretariat of the Public Works Department was also appointed to conduct the correspondence between the Government of India and these officers.

Early in 1877 a further change was made in the organisation responsible for the administration and control of State Railways and in the place of one Director of State Railways three Directors of territorial systems and one Director of State Railways Stores were appointed. These territorial divisions comprised the following systems:—

Central	1,179 miles.
Western, and	927 miles.
North Eastern	830 miles.

This division of the administration on a territorial basis proved unsatisfactory in practice as it resulted in the issue of conflicting orders as far as the management of open lines was concerned although no difficulty was experienced in the supervision of new construction.

As the number of lines under construction had decreased and in order to remedy the defect just mentioned, it was decided in 1880 to abolish the Directors of the Central and Western Systems and to transfer the work allotted to them to the Consulting Engineers of the neighbouring guaranteed railways. The abolition of these two appointments resulted in an increase in the administrative work of the Secretariat and it was found necessary to raise the status of the Deputy Secretary to whom the powers previously exercised by the Directors had been entrusted, to that of Director General of Railways.

In the revised organisation the Consulting Engineer to the Government of India for State Railways was associated with the Director General of Railways and assisted the latter primarily in an advisory capacity in matters of civil engineering while the Director of Stores similarly acted in matters concerning stores and rolling-stock and at the same time was an adviser in matters affecting establishment. The Director of Traffic was appointed at the same time as an adviser on traffic problems and the accounts work of the department was placed under the Accountant General, Public Works Department.

Government control and supervision of the Guaranteed Railways continued to be exercised by the Local Consulting Engineers to Government. There were five such officers at the time with headquarters at Bombay, Madras, Calcutta, Lahore and Lucknow. The Consulting Engineers at Madras and Bombay worked directly under the Government of these Presidencies, while those at Calcutta, Lahore and Lucknow were under the immediate orders of the Government of India. Under this arrangement practically all powers affecting the finances and day to day management of the railways were vested either in the Consulting Engineers or in the Government, both

for the guaranteed railway companies and later on for State Railways which had been leased for working to railway companies.

The following is a list of the administrative appointments that existed in 1881 :—

1. Member of the Governor General's Council, Public Works Department.
2. Secretary, Public Works Department.
3. Deputy Secretary, Railway Branch.
4. Under Secretary, Railway Branch.
5. Consulting Engineer of State Railways.
6. Director General of Railways.
7. Director of Construction.
8. Accountant General, Public Works Department.
9. Director of State Railways, Stores.
10. Three Assistants to the Director General of Railways.
11. Consulting Engineers for Guaranteed Railways at Calcutta, Lahore and Lucknow.
12. Deputy Consulting Engineers for Guaranteed lines, Calcutta, Lahore and Lucknow.

Madras and Bombay.

13. Joint Secretary, Railway Branch and Consulting Engineer for Railways.
14. Deputy Secretary, Public Works Department.

Punjab.

15. Secretary, Public Works Department.

By this time also Local Governments and Administrations had been induced to take a practical interest in the management of railways and in a few cases short extensions had been constructed from funds the interest of which Local Governments had accepted responsibility to pay. Such lines were controlled by the Local Governments concerned under the general supervision of the Government of India.

After 1881 further alterations of a more or less detailed character were made in the administrative organisation and by 1890 the following changes had taken place. Instead of a Deputy Secretary and Under Secretary, Railway Branch, there were then only an Under Secretary and an Assistant Secretary, Railways, in the General Branch. The posts of Director of State Railways, Stores, and Director of Construction had disappeared and in their place there was an Under Secretary, who was an *ex-officio* Deputy Director General of Railways. The post of Accountant General, Railways, had also been abolished and the Accountant General, Public Works Department, was once more made responsible for this work.

Further changes were made in 1897. In that year the post of Director General of Railways was abolished and the post of a Secretary to the Government of India in the Public Works Department was created in its place. The other administrative and secretariat appointments at the headquarters of the Government of India at the time were :—

(1) Director of Railway Construction, and Deputy Secretary and *ex-officio* Director of Stores.
(2) Director of Railway Traffic, and Deputy Secretary and *ex-officio* Director of Railway Statistics.
(3) Two Under Secretaries.
(4) Two Assistant Secretaries.
(5) One Mechanical Assistant.

The post of Consulting Engineer for State Railways was also abolished and his duties transferred to the two Directors. The supervision of the accounts work of the Department, however, still remained under the Accountant General, Public Works Department, who was also an *ex-officio* Deputy Secretary to the Government of India.

In October 1901, Sir Thomas Robertson, C.V.O., was appointed by His Majesty's Secretary of State for India in Council as Special Commissioner for Indian Railways to enquire into and report on the administration and working of Indian Railways. In his report, which became available in 1903, Sir Thomas recommended that the administration of the railways in India should be entrusted to a small Board consisting of a President or Chief Commissioner who should have a thorough practical knowledge of railway working, and should be a member of the Viceroy's Council for railway matters, and two other Commissioners who should be men of high railway standing

and should have a similar training to that of the President. He recommended that the Board should, in addition to the necessary office establishment, be provided with—

(1) A Secretary who should have received a suitable training in the practical working of railways, and who should be *ex-officio* a Secretary to the Government of India.

(2) A Chief Inspector of Railways, to advise on all technical, engineering and mechanical questions.

(3) A suitable number of Government Inspectors.

Sir Thomas Robertson's recommendations were carefully considered by the Governor General in Council and the Secretary of State, and early in 1905 it was decided that the Railway Branch of the Public Works Department of the Government of India should be abolished and that the control of the railway systems in India should be transferred to a Railway Board consisting of three persons, a Chairman and two Members. The Chairman of the Board was vested with the general control of all questions committed to the Railway Board with power to act on his own responsibility subject to confirmation by the Board. The Railway Board were authorised to delegate to the Chairman or a member the power of settling questions which might arise on any tour of inspection, such decision to be recorded subsequently as an act of the Railway Board. The Board was made subordinate and directly responsible to the Government of India in the Department of Commerce and Industry.

The Railway Board assumed office in March 1905 and were provided with the following establishment:—

1. Secretary.
2. Examiner of Accounts.
3. Under Secretary, Construction.
4. Under Secretary, Traffic.
5. Registrar.
6. Director of Railway Construction.

Certain changes were, however, made in the following year and the establishment then consisted of:—

1 Secretary.

3 Assistant Secretaries; one each for Establishment, Construction and Traffic.

1 Registrar.

1 Director of Railway Construction.

1 Railway Accounts Officer.

Sir Thomas Robertson had further suggested in his detailed recommendations that extended powers, both administrative and financial, should be delegated to Boards of Directors of Companies, that the appointments of Consulting Engineers should be abolished and that the work which they performed under the Railways Act should be entrusted to a body of Government Inspectors to be appointed for the purpose. These recommendations were given effect to in a modified form in 1908.

Within a short time after the constitution of the Railway Board, it was found that work was being hampered by having the Commerce and Industry Department between the Railway Board and the Governor General in Council and in October 1908 on the recommendations of the Railway Finance Committee presided over by Sir James Mackay (now Lord Inchcape), the following changes were introduced:—

1. The appointment of the Chairman of the Railway Board was changed into that of President of the Railway Board and enhanced powers were vested in the President.

2. The Board with its staff became collectively the Railway Department distinct from and independent of the Department of Commerce and Industry, though remaining under the administrative charge of the Hon'ble Member, Commerce and Industry Department, as the Railway Member.

3. The President of the Board was given direct access to the Viceroy as if he were a Secretary to the Government of India.

At the same time in consequence of the amalgamation of the Public Works Department Accounts and Civil Audit Establishments under the control of the Finance Member of the Government of India the appointment of Accountant General, Public Works Department, was abolished and the appointment of Accountant General, Railways, was revived.

In 1909 the post of Director of Railway Construction was abolished and the appointment of Chief Engineer with the Railway Board for the purpose of advising the Railway Board on technical matters connected with Civil Engineering was created.

In January 1914, it was decided that the importance of financial and commercial considerations in connection with the control of Indian railway policy justified a modification of the rule that the President and Members of the Railway Board should all be men of large experience in the actual working of railways. It was then decided that in future one member who equally with the others might be appointed President should be selected for commercial and financial experience and a member with the necessary qualifications was appointed.

This arrangement was, however, altered in 1920 when it was decided that all the three members of the Board should possess railway experience. To assist the Board, however, in the consideration of financial questions, the post of Financial Adviser to Railway Board was created.

Owing to the expansion of railways in India and the increased work thrown on the Board a second Assistant Secretary, Engineering, was appointed in 1914, and in 1916 the duties of the Construction Branch were divided between one branch dealing with Projects under an Assistant Secretary and a second branch dealing with Way and Works which was sometimes under a separate officer and at other times under the Secretary or Chief Engineer. In 1922 the charge of the Way and Works branch was divided between the Assistant Secretary in charge of Projects and the Assistant Secretary in charge of Stores.

In November 1922, the Board's establishment was strengthened by the appointment of a Chief Mechanical Engineer. This appointment was created to enable the Board to have at headquarters a reliable adviser on matters connected with mechanical engineering.

During 1921 a Committee presided over by Sir William Acworth visited India and one of the questions referred to was the evolution of a satisfactory authority for the administration of the varied functions which the Railway Board had to perform as:—

(*a*) the directly controlling authority of the three State-worked systems aggregating 9,028 miles,

(*b*) representative of the predominant owning partner in systems aggregating 22,949 miles,

(*c*) the guarantor of many of the smaller companies,

(*d*) the statutory authority over all railways in India.

The Acworth Committee recommended in their report:—

(1) that a new Department of Communications responsible for railways, ports and inland navigation, road transport and posts and telegraphs under a Member of Council in charge of Communications should be created,

(2) that under the Member of Council for Communications there should be a technical staff consisting on the railway side of a Chief Commissioner and four Commissioners and that of the four one should be in charge of finance and the organisation and staff of the office and the other three Commissioners should be in charge of three respective divisions, Western, Eastern and Southern,

(3) that the technical staff attached to the Commission should be strengthened specially on the traffic side.

The Government of India, though they did not accept the first recommendation of the Acworth Committee, agreed to the re-organisation of the Railway Board being undertaken on the principles underlying the report of the Acworth Committee. The appointment of a Chief Commissioner was accordingly sanctioned in November 1922, and in accordance with the recommendations of the Acworth Committee he is solely responsible, under the Government of India, for arriving at decisions on technical questions and advising the Government of India on matters of Railway policy; he is not liable to be over-ruled, as the President was, by his colleagues in the Railway Board.

The first duty of the Chief Commissioner was to work out detailed proposals for the re-organisation of the Railway Board and as a first step he made recommendations to the Government of India for the immediate appointment of a Financial Commissioner. This recommendation was strongly endorsed by the Indian Retrenchment Committee and the appointment of the Financial Commissioner was made in April 1923 with the sanction of the Secretary of State. The further proposals of the Chief Commissioner for the re-organisation of the Railway Board were accepted by the Government of India and the Secretary of State and were introduced from the 1st April 1924. It was decided, however, for reasons connected with the present statutory position of the Railway Board, and to avoid confusion with the provisions for a Railway Commission under Chapter V of the Railways Act, to retain the name "Railway Board" for the headquarters organisation of the Railway Department instead of "Railway Commission" as recommended by the Acworth Committee.

The Railway Board as then reconstituted consisted of the Chief Commissioner as President, the Financial Commissioner and two Members, the Chief Commissioner being Secretary to the Government of India in the Railway Department. The proposal of the Acworth Committee that the Indian Railways should be sub-divided into three territorial divisions with a Commissioner in charge of each was not accepted, and the work of the Members of the Board was divided on the basis of subjects and not on a territorial basis. One Member dealt with technical subjects and the other with general administration, personnel and traffic subjects, the Financial Commissioner representing the Finance Department on the Board and dealing with all financial questions.

The reorganisation carried out in 1924 had for one of its principal objects the relief of the Chief Commissioner and the Members from all but important work so as to enable them to devote their attention to larger questions of railway policy and to enable them to keep in touch with Local Governments, railway administrations and public bodies by touring to a greater extent than they had been able to do in the past. This object was effected by placing a responsible Director at the head of each of the main branches of the Board's work, namely Civil Engineering, Mechanical Engineering, Traffic and Establishment. The former Chief Engineer and the Chief Mechanical Engineer who had been employed mainly in consultative work, became Directors and together with the Directors of Traffic and Establishment have been made responsible for the direct disposal of the work of their branches under the general orders of the Railway Board.

The posts of Joint Secretary and 4 Assistant Secretaries were replaced by 6 Deputy Directors working under the Directors and in charge of branches dealing with Establishment, Works, Projects, Stores, Statistics and Traffic. One Assistant Director was also added to supervise the Technical Branch and the Drawing Office. The disposal of the general work of the Railway Board was provided for by the continuance of the post of Secretary in whose name all letters and orders of the Board are issued. The position of the Board as a Department of Government of India has been maintained and it works under the Member for Commerce and Railways. As already stated the Chief Commissioner is the Secretary to the Government of India in the Railway Department and orders issued by the Board over the signature of the Secretary are orders of the Government of India.

Experience of the working of this organisation during 1924-25 and the decision agreed to by the Legislative Assembly in September 1924 to separate railway finances from the general finances of the country made it necessary to appoint a Deputy Director and an Assistant Director of Finance. An Assistant Director of Statistics was also added during that year. Later a Director of Finance was added to the establishment occupying, as regards disposal of work, the same position as the Directors referred to above.

Further experience of the reduction of work resulting from the large delegation of powers and responsibility to the Agents of State-managed Railways and the Board of Directors of Company-managed railways enabled a re-arrangement of work to be made during 1925-26 accompanied by a reduction in the staff. Under this re-arrangement the posts of 3 Deputy Directors, an Assistant Director and the Assistant Secretary were held in abeyance. The personnel work was transferred from the Director of Establishment to the Secretary and a temporary post of Deputy Secretary was created. Further a separate technical office was established to take charge of the technical work of the engineering branches. The Technical Officer also acted as *ex-officio* Secretary to the permanent Standardisation Committees which were appointed to deal progressively with all questions of standards of equipment.

This arrangement was found, however, to be inadequate. In addition to the general increase in work in the Railway Board's Office consequent on the taking over of the East Indian, Great Indian Peninsula and Burma Railways under State control labour problems had assumed such importance and were so rapidly increasing in number and complexity that it was not possible to deal with them effectively without the appointment of additional staff. Accordingly it was decided to create an additional post of Member of the Railway Board to deal with staff and labour questions; leaving the Member in charge of Traffic, who had hitherto been dealing with establishment matters, to devote his whole time to questions relating to the Transportation and Commercial aspects of Railway work.

It was also decided to revive the post of Deputy Director, Establishment, so as to free the Director of Establishment from this work, and thus enable him to give his time to the study of problems of railway labour. Of the two posts of Deputy Directors of Traffic and Statistics one was held in abeyance from 1925 and the two posts have since been amalgamated.

In October 1930 the compilation of statistical information which used previously to be done in the Board's office was entrusted to the Controller of Railway Accounts, and with the transfer of this work, the post of Assistant Director of Statistics was also transferred from the Railway Board's office to that of the Controller of Railway Accounts.

In 1931-32, in view of the decline in traffic earnings and in the number and magnitude of Engineering works owing to financial stringency, the possibility of making temporary reductions in the organisation of the Board was explored and as a result of this examination and with the approval of the Secretary of State for India the following superior posts have been held in abeyance with effect from the dates noted below:—

Member, Traffic—29th March 1932.

Member, Engineering—5th May 1932.

Director, Civil Engineering—4th December 1931.

Director, Mechanical Engineering—1st April 1932.

Deputy Secretary—1st March 1932.

Assistant Director of Finance—31st July 1931.

It was also decided, for so long as the post of Member Traffic, was held in abeyance, to create an additional temporary post of Deputy Director, Traffic, with effect from the 1st April 1932.

The reorganisation was complete in May 1932, and then the superior staff in the office of the Railway Board consisted of the Chief Commissioner, the Financial Commissioner, 1 Member, 3 Directors, 6 Deputy Directors and 1 Secretary.

For the conduct of the work connected with the production of standard designs and specifications for all classes of materials, plant and rolling stock in use on Indian Railways, a Central Standards Office for Railways was formed in January 1930 for a period of 5 years as an experimental measure. On the formation of the above office the post of Technical Officer with the Railway Board was abolished.

APPENDIX D.

Resolution regarding the separation of railway from General Finances, adopted by the Legislative Assembly on the 20th September 1924.

"This Assembly recommends to the Governor General in Council that in order to relieve the general budget from the violent fluctuations caused by the incorporation therein of the railway estimates and to enable railways to carry out a continuous railway policy based on the necessity of making a definite return to general revenues on the money expended by the State on Railways.

(1) The railway finances shall be separated from the general finances of the country and the general revenues shall receive a definite annual contribution from railways which shall be the first charge on the net receipts of railways.

(2) The contribution shall be based on the capital at charge and working results of commercial lines, and shall be a sum equal to one per cent. on the capital at charge of commercial lines (excluding capital contributed by companies and Indian States) at the end of the penultimate financial year *plus* one-fifth of any surplus profits remaining after payment of this fixed return, subject to the condition that, if in any year railway revenues are insufficient to provide the percentage of one per cent. on the capital at charge surplus profits in the next or subsequent years will not be deemed to have accrued for purposes of division until such deficiency has been made good.

The interest on the capital at charge of, and the loss in working, strategic lines shall be borne by general revenues and shall consequently be deducted from the contribution so calculated in order to arrive at the net amount payable from railway to general revenues each year.

(3) Any surplus remaining after this payment to general revenues shall be transferred to a railway reserve; provided that if the amount available for transfer to the railway reserve exceeds in any year three crores of rupees only two-thirds of the excess over three crores shall be transferred to the railway reserve and the remaining one-third shall accrue to general revenues.

(4) The railway reserve shall be used to secure the payment of the annual contribution to general revenues; to provide, if necessary, for arrears of depreciation and for writing down and writing off capital; and to strengthen the financial position of railways in order that the services rendered to the public may be improved and rates may be reduced.

(5) The railway administration shall be entitled, subject to such conditions as may be prescribed by the Government of India, to borrow temporarily from the capital or from the reserves for the purpose of meeting expenditure for which there is no provision or insufficient provision in the revenue budget subject to the obligation to make repayment of such borrowings out of the revenue budgets of subsequent years.

(6) A Standing Finance Committee for Railways shall be constituted consisting of one nominated official member of the Legislative Assembly who should be chairman and eleven members elected by the Legislative Assembly from their body. The members of the Standing Finance Committee for Railways shall be *ex-officio* members of the Central Advisory Council, which shall consist, in addition, of not more than one further nominated official member, six non-official members selected from a panel of eight selected by the Council of State from their body and six non-official members selected from a panel of eight elected by the Legislative Assembly from their body.

The Railway Department shall place the estimate of railway expenditure before the Standing Finance Committee for Railways on some date prior to the date for the discussion of the demand for grants for railways and shall, as far as possible, instead of the expenditure programme revenue show the expenditure under a depreciation fund created as per the new rules for charge to capital and revenue.

(7) The railway budget shall be presented to the Legislative Assembly if possible in advance of the general budget and separate days shall be allotted for its discussion, and the Member in charge of railways shall then make a general statement on railway accounts and working. The expenditure proposed in the railway budget, including expenditure from the depreciation fund and

the railway reserve, shall be placed before the Legislative Assembly in the form of demands for grants. The form the budget shall take after separation, the detail it shall give and the number of demands for grants into which the total vote shall be divided shall be considered by the Railway Board in consultation with the proposed Standing Finance Committee for Railways with a view to the introduction of improvements in time for the next budget, if possible.

(8) These arrangements shall be subject to periodic revision but shall be provisionally tried for at least three years.

(9) In view of the fact that the Assembly adheres to the resolution passed in February 1923, in favour of State management of Indian Railways, these arrangements shall hold good only so long as the East Indian Railway and the Great Indian Peninsula Railway and existing State-managed railways remain under State management. But if in spite of the Assembly's resolution above referred to Government should enter on any negotiations for the transfer of any of the above railways to Company management such negotiations shall not be concluded until facilities have been given for a discussion of the whole matter in the Assembly. If any contract for the transfer of any of the above railway to Company management is concluded against the advice of the Assembly, the Assembly will be at liberty to terminate the arrangements in this Resolution.

Apart from the above convention this Assembly further recommends—

(*i*) that the railway services should be rapidly Indianised, and further that Indians should be appointed as Members of the Railway Board as early as possible, and

(*ii*) that the purchases of stores for the State Railways should be undertaken through the organisation of the Stores Purchase Department of the Government of India."

APPENDIX E.

Government of India, Railway Department, Resolution No. 2131-F., dated the 19th February 1925, on the subject of the financing of branch lines of railways.

The Governor General in Council, with the sanction of His Majesty's Secretary of State for India, is pleased to issue the following orders on the subject of financing of Branch Lines, in suppression of all previous orders on the subject.

1. Branch and Feeder Lines are constructed under an agreement by which the State guarantees a minimum return on the capital, or alternatively, undertakes that the line shall receive, out of the earnings of the main line from traffic contributed by the branch, such a sum, known as a rebate, as will make up the total earnings of the branch to a given sum, while the branch in each case shares with the main line any profits exceeding the guaranteed minimum.

2. This method of encouraging the construction of lines originated 30 years ago simply because the Government of India was unable to furnish the necessary capital.

3. The Acworth Committee pointed out that this method, while enabling lines to be built which would otherwise not have been built, has no other merit. The financial terms usual before the war are now quite inadequate and if the system is to continue they will have to be revised. All the witnesses before the committee who asked for a revision of the terms admitted that, if the main line were in a position to build a given branch itself, they would prefer that it should be done by the main line rather than that it should be done as a separate undertaking.

4. Amongst the disadvantages pointed out by the Committee are the following:—

(*i*) The Branch Line Company is usually a fifth wheel to the coach. It implies in some cases a separate construction staff; it always implies a separate Board of Directors, and separate accounts.

(*ii*) Where the branch is worked by the main line, if its Directors feel that the management is unsatisfactory, they not only make representations to the main line administration, but in the last resort can appeal to the Railway Board which does not make for harmony.

(*iii*) Capital raised by a small private undertaking, even with a Government guarantee, will cost more than money raised by the State.

(*iv*) Inconceivable confusion results from the multiplication of independent Railway Companies—each company, small or great, desires to reserve for itself a separate sphere of influence; and jealously demands that, if any new-comer intrudes into that sphere, he shall pay toll to the original concessionaire. This only complicates a situation which ought to be considered solely from the point of view of the public interest. New proposals for the extension or connection of lines by small independent companies are either refused owing to protests by the old company or only permitted on a basis of elaborate accounting between the new company and the old for the profits which hypothetically would have belonged to the old line had the new line not been opened.

5. The only arguments urged in favour of the Branch Line Companies were:—

(*i*) That money had been raised which the Government of India was unable to furnish.

(*ii*) That a claim was made that the Branch Line Company obtained from local sources money that would never be subscribed to a Government loan.

(*iii*) That there may be cases of a Branch Line of smaller gauge *worked independently*, which the Branch Line Company can operate more economically than a main line.

6. The Acworth Committee, therefore, so far from approving of this system considered that the aim of the Government should be to reduce by amalgamation the number of existing companies and that it should only be in cases where the State cannot or will not provide adequate funds that private enterprise in the direction should be encouraged.

7. The disadvantages pointed out by the Acworth Committee required to be even further amplified. The existing Branch Line Companies have ceased for some time to raise additional capital for capital requirements. They have either obtained overdrafts from various Banks for this purpose at heavy rates of interest or issued debentures at special rates of interest (usually about 7 per cent.) or in several cases asked

for money to be advanced to them by the Railway Board. So far, therefore, from reducing the amount that the Government of India have to raise in the open market, they are at present increasing that amount.

8. Another serious disadvantage which is not mentioned by the Acworth Committee is that the main line usually works the Feeder or Branch Line for a remuneration which, in most cases, is limited to a maximum of a fixed percentage of the gross earnings of the Branch Line (usually 40 per cent. or 50 per cent.)—terms of remuneration which at present are grossly inadequate. The result of this arrangement is that many of the main lines whose working expenses are from 60 to 80 per cent. of the gross earnings are saddled with heavy expenditure which ought to have been debited to Branch Line Companies. Where the Branch Line Companies are "successful", that is, where the shares stand at a high figure, their profits are inflated owing to their working expenses being thus artificially reduced. Again, where in the case of less "prosperous" Branch Line Companies, the Government has to make a direct subsidy in order to make up the guaranteed interest on the capital, the amount paid by way of subsidy does not reveal the true loss of the Government in connection with the Branch Line Company. To this subsidy should be added also the additional loss incurred from the main line working the Branch Line at less than the actual cost. Even this, however, does not give a complete statement of the loss sustained by Government in connection with these Companies. These Companies have been supplied with land free of charge and the cost of such land is not taken into account either in the Capital or the Revenue Accounts of the Companies concerned.

9. The only real argument in favour of these Companies is that they must be utilised in cases where the Government itself is unable or declines to raise the necessary amount of capital for new constructions. It is doubtful whether such a position is likely to recur in the future. It is admitted that to use the agency of these Companies is a far more expensive method of raising money for the construction of railways than direct Government loans can ever be. The amount of assistance given by Branch Line Companies in the past has been trivial; the total amount of capital raised through the agency of Branch Line Companies has only been about Rs. $10\frac{3}{4}$ crores—an amount which in itself is less than the lapse that occurred last year in the provision for capital expenditure in the Railway Budget.

10. The difficulties and complications now experienced in connection with these Branch Line Companies are out of all proportion to the insignificant financial facilities offered by the Companies. The Government of India have therefore decided that the Branch line policy should be abandoned and that an endeavour should be made to reduce the number of the existing Branch Line Companies. If on any occasion the Government of India should be unable to find funds for construction (which is not the case at present), and should it be considered advisable to tap fresh sources for subscription to railway loans by offering terms different from those given to the ordinary Government loans, that is, by offering not only a fixed rate of interest, but a share in the profits of a particular Branch Line, there appears to be no particular advantage of using a financial half-way house specially to float a loan on such terms; there appears to be no reason why the Government should not float the loan direct. But it will probably be found sufficient to raise short term debentures at a high rate of interest—to be liquidated when the loan market is favourable—a procedure adopted now by the Branch Line Companies, but at a higher rate of interest than would be necessary for the Government.

11. There remains the case of the District Board Railways for which some of the capital or the security for the captial is secured by a special cess levied by the District Board throughout the district.

The Acworth Committee pointed out that where a District Board was the promoter of a new Branch Line, considerations other than purely commercial came into play with the result of further complications and confusion. In a footnote to the report they referred to the views expressed by the Madras Government who had drawn attention to a case in which, although no short-circuiting was involved, there had been a delay of over 10 years in arriving at a decision in regard to the terms for working a District Board Railway by the South Indian Railway Company. The amount of capital raised by District Boards for such lines has been only Rs. 137 lakhs while the amount raised by Company lines subsidised by District Boards amounts to Rs. $2\frac{1}{4}$ crores. These amounts are insignificant as compared with the total capital raised by the Government and it is clear that the relief afforded to the Government of India in raising the loans is quite disproportionate to the great complications which have resulted in the working of the railway administration. Loans raised direct by the District Boards do not relieve the market of the Government of India; the money is ultimately borrowed from the Government of India.

12. The legal position regarding the powers of District and Local Boards in the matter of railway construction and management depends in part on the Indian Railways Act, 1890, which, in the absence of express exclusion of its application, extends to all District Board railways and, in part on the nature of the provision made in the

matter in the District or Local Boards Act of the province concerned. It is only in the Madras Presidency that the question has assumed prominence and it will suffice to indicate briefly the nature of the provisions contained in the Madras Local Boards Act, 1920. Action under section 113 of that Act can only be taken "with the previous sanction of the Government of India." Having obtained such sanction, a District Board may either itself construct and maintain a railway within, or partly within, the local area under the control of the Board, or may subscribe to any debenture loan raised by the Government of India or by any other local authority or by any company for the construction or maintenance of any railway which the Board considers likely to be of benefit to the district, or may guarantee the payment from the district fund of such sums as it shall think fit as interest on capital expended on any such railway (that is, whether the railway is constructed by the Government of India or by any other local authority or by a Company).

Section 236 of the same Act provides that the accumulations of a local railway cess may be utilised for all or any of the purposes specified in section 113, including the guaranteeing of payment of interest on capital spent on a railway.

A District Board in Madras, therefore, can guarantee the payment from the district fund of the money sufficient to make up minimum interest on capital expended on a railway within its area whether such railway is constructed by the Government of India or by a Company, the only disadvantage attaching to this particular form of guarantee being that the Act does not make the payment of the guaranteed interest a first charge on the District Board Fund.

13. The Government of India could not reasonably use their powers under the Indian Railways Act, 1890, or under, *e.g.*, section 113 of the Madras Local Boards Act, 1920, to prevent a District Board or a local body from constructing a light railway or a tramway which had no physical connection with any existing main line and which that local body proposed to work itself or through a local company. But as things stand at present there is no reason for continuing the practice under which District Boards are allowed to make money out of Branch Lines connected with a main line when they themselves cannot make any arrangements for the working of the lines and require to have them run by the main lines.

14. These District Board railways must not be confused with the light and feeder railways which constitute a provincial subject under the Devolution Rules. The provincial subject in question comprises "light and feeder railways and extra-municipal tramways in so far as provision for their construction and management is made by provincial legislation." That is to say, it comprises only individual light or feeder railways or extra-municipal tramways for the construction and management of which specific provision has been made by an Act of the local legislature of the province concerned. Hitherto, no such legislation has been enacted with the result that the entry in question in the provincial schedule, as also the qualifying words to entry 5 (*a*)* in the central schedule, have no operation, and all existing railways of every description are included in the central subject defined in the last-named entry. It should also be observed that the provincial subject in question is "subject to legislation by the Indian Legislature in the case of any such railway or tramway which is in physical connection with a main line or is built on the same gauge as an adjacent line", the effect being that a provincial bill designed to provide for the construction of a light or feeder railway or extra-municipal tramway in physical connection with a main line or built on the same gauge as an adjacent main line would require the previous sanction of the Governor General under clause (*f*) of sub-section (3) of section 80 A of the Government of India Act; and it may be presumed that few occasions are likely to arise in which provision will be made by local legislation for the construction of a light or feeder railway not answering one or other of these descriptions.

15. The proposal set forth in this Resolution is not designed to evade the legitimate operation of the legal position described, in the case of District Board railways, in paragraph 12 and in the case of provincial light and feeder railways, in paragraph 14; but it follows from the proposal that Local Governments and District or Local Boards should not, in the absence of special circumstances, be encouraged to build branch or feeder lines. In other words, the normal procedure will be the construction by the Government of India, or, at its cost, by a Company, of a branch line which a District Board or Local Government desires to have constructed and is prepared to guarantee. But, should the railway programme not permit the construction of such a line within a reasonable time, the possibility of permitting a District Board or Local Government to construct it from its own funds would require consideration.

Unremunerative Lines.

16. The above proposals relate to the procedure adopted in the past and the procedure which it is proposed to adopt in the future for the financing of the con-

* "Railways and extra-municipal tramways, in so far as they are not classified as provincial subjects under entry 6 (*d*) of Part II of this Schedule."

struction of branch or feeder lines expected to prove remunerative from the point of view of railway earnings only. But there are cases where the Local Governments or local authorities may desire that a line should be constructed which will not be remunerative on railway earnings and the construction of which is desired by them for purely local reasons on account of the administrative advantages it is likely to confer or for the development of a particular area. It is proposed that in future the Railway Board in such circumstances should have power to arrange for the construction of the line from railway funds if the Local Government or the local authority guarantees the Railway Board against loss. The guarantee would be to the effect that the local authority would make up the difference between the net earnings and the interest and other charges payable. As it is not desirable that the Central Government should make any profit out of such contributions by local authorities, it is also proposed that where contributions have been made by a local authority for this purpose the repayment of such contributions should be a first charge on any net profits subsequently realised from the line, should the line prove remunerative.

17. The Central Government must, however, retain the power to decide whether a line is to be built or not; the proposals in the preceding paragraph must not be taken to imply that a Local Government by giving a guarantee can require the Railway Board to construct a line. Proposals of a Local Government might run counter to the general railway policy or might take the form of short-circuiting railway traffic and so lead to a reduction of receipts from existing lines.

18. These proposals have been circulated to Local Governments and have been generally welcomed by them as affording a suitable method of reconciling central and local interests and of providing for local bodies and Local Governments a method of securing the construction of railways which may be required for purely local reasons, and which, while not likely to prove remunerative on purely railway earnings, are likely to provide such indirect benefits to Local Governments and local bodies as will more than repay the amounts paid under the guarantee. Several such arrangements have already been made with Local Governments.

APPENDIX F.

Statement of Gazetted Officers and Officers of corresponding rank employed on Class I Railways, Railway Board and other Railway Offices (excluding H. E. H. the Nizam's State and Jodhpur Railways) on the 1st April 1932 as compared with 1st April 1931.

Item.	A. B.		B. N.		B. & N. W.		B., B. & C. I.		BURMA.		E. B.		E. I.		G. I. P.		M. & S. M.		N. W.		R. & K.		S. I.		Ry. Board and Miscellaneous officers.		TOTAL.	
	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1. *Agency Department*—																												
1·01. Europeans	2	2	6	*6	3	4	9	10	4	3	3	4	5	6	6	6	5	5	6	6	1	1	3	3	2	5	55	*61
1·02. Indians—																												
(a) Hindus	..	..	2	2	..	..	..	..	..	..	3	1	1	1	2	1	1	1	1	1	..	..	3	3	..	..	13	10
(b) Muslims	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	..	..	..	..	..	..	2	1
(c) Anglo-Indians and domiciled Europeans.	..	..	1	1	..	..	..	..	..	1	1	..	2	2	..	..	2	1	..	1	..	..	1	1	..	..	7	7
(d) Other classes†	..	..	..	..	..	..	..	..	1	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	2	2
(e) Total	..	..	3	3	..	..	..	..	1	2	4	1	3	3	3	2	3	2	3	3	..	..	4	4	..	..	24	20
1·03. GRAND TOTAL	2	2	9	*9	3	4	9	10	5	5	7	5	8	9	9	8	8	7	9	9	1	1	7	7	2	5	79	*81
2. *Accounts Department*—																												
2·01. Europeans	..	..	6	6	6	6	8	8	4	4	2	2	5	4	6	9	7	7	..	*..	1	1	6	6	1	1	52	*54
2·02. Indians—																												
(a) Hindus	..	..	7	6	2	1	2	2	1	1	7	5	6	9	2	1	2	2	1	*7	2	2	9	8	6	4	47	*48
(b) Muslims	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	*1	..	..	..	..	1	1	2	*2
(c) Anglo-Indians and domiciled Europeans.	..	..	1	1	..	..	1	1	1	1	..	2	5	6	1	1	2	1	2	2	..	..	..	..	1	1	14	16
(d) Other classes†	..	..	..	..	..	..	2	3	..	..	..	..	1	..	1	1	1	1	1	*..	..	..	..	..	..	..	6	*5
(e) Total	..	..	8	7	2	1	5	6	2	2	7	7	12	15	4	3	5	4	5	*10	2	2	9	8	8	6	69	*71
2·03. GRAND TOTAL	..	..	14	13	8	7	13	14	6	6	9	9	17	19	10	12	12	11	5	*‡10	3	3	15	14	9	7	121	*125
3. *Engineering Department*—																												
3·01. Europeans	13	14	48	59	18	17	37	39	31	32	22	28	55	54	56	68	33	34	53	55	4	4	31	34	14	14	415	452
3·02. Indians—																												
(a) Hindus	5	7	14	16	3	3	13	15	2	2	15	13	31	38	4	5	15	15	41	58	..	..	12	20	1	1	156	188
(b) Muslims	2	2	2	2	2	2	..	..	1	1	1	1	5	6	5	4	..	..	6	7	1	1	1	2	..	..	26	28
(c) Anglo-Indians and domiciled Europeans.	3	3	7	8	1	1	..	..	3	4	1	3	4	7	..	..	1	1	6	5	..	..	1	2	1	3	28	37
(d) Other classes†	1	1	1	2	..	..	2	2	..	..	1	1	1	3	4	4	..	..	5	11	..	..	2	2	..	..	17	26
(e) Total	11	13	24	28	6	6	15	17	6	7	18	18	41	54	13	13	16	16	58	76	1	1	16	26	2	4	227	279
3·03. GRAND TOTAL	24	27	72	87	24	23	52	56	37	39	40	46	96	108	69	81	49	50	111	131	5	5	47	60	16	18	642	731

* Revised figures.

† Includes figures for Sikhs and Indian Christians.

‡ The large variation in the figures as supplied previously and those now furnished is due to the fact that the staff on loan from D. R. A.'s office was inadvertently included previously.

APPENDIX F—*contd.*

***Statement of Gazetted Officers and Officers of corresponding rank employed on Class I Railways, Railway Board and other Railway Offices (excluding H. E. H. the Nizam's State and Jodhpur Railways) on the 1st April 1932 as compared with 1st April 1931*—concld.**

Item.	A. B.		B. N.		B. & N.-W.		B., B. & C. I.		BURMA.		E. B.		E. I.		G. I. P.		M. & S. M.		N. W.		R. & K.		S. I.		Ry. Board and Miscellaneous officers.		TOTAL.	
	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
4. *Transportation*—																												
4·01. Europeans	7	7	28	29	12	12	25	27	20	*24	19	18	34	35	49	40	20	20	32	33	3	3	13	*14	4	10	266	*281
4·02. Indians—																												
(*a*) Hindus	4	4	12	12	1	1	7	7	..	..	11	8	14	5	7	5	9	10	11	17	..	..	10	9	2	2	88	80
(*b*) Muslims	1	1	5	5	1	1	2	2	..	..	4	5	5	8	3	2	..	..	6	5	1	1	1	1	3	3	32	34
(*c*) Anglo-Indians and domiciled Europeans.	3	3	3	3	..	..	2	4	2	1	3	4	7	2	7	4	3	3	2	3	..	..	3	4	3	4	38	35
(*d*) Other classes†	..	..	2	2	..	..	6	5	6	6	..	..	1	1	..	..	..	..	3	2	..	..	..	..	..	2	18	18
(*e*) Total	8	8	22	22	2	2	17	18	8	7	18	17	27	16	17	11	12	13	22	27	1	1	14	14	8	11	176	167
4·03. GRAND TOTAL	15	15	50	51	14	14	42	45	28	*31	37	35	61	51	66	60	32	33	54	60	4	4	27	*28	12	21	442	*448
5. *Commercial*—																												
5·01. Europeans	1	1	Included under Transportation.		2	2	Included under Transportation.						6	5	15	12	Included under Transportation.		11	14	Included under Transportation.		3	2	..	..	38	36
5·02. Indians—																												
(*a*) Hindus	..	..	..	..	..	..	..	..	..	..	..	..	3	1	4	5	..	..	3	4	..	..	4	4	..	..	14	14
(*b*) Muslims	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	3	..	..	..	..	..	..	2	3
(*c*) Anglo-Indians and domiciled Europeans.	..	..	..	..	..	..	..	..	..	..	..	..	6	4	2	2	..	..	..	3	..	..	1	1	..	..	9	10
(*d*) Other classes†	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	2	..	..	..	..	..	..	..	2	1
(*e*) Total	..	..	..	..	..	..	..	..	..	..	..	..	9	5	6	8	..	..	7	10	..	..	5	5	..	..	27	28
5·03. GRAND TOTAL	1	1	..	..	2	2	..	..	..	..	..	..	15	10	21	20	..	..	18	24	..	..	8	7	..	..	65	64
6. *Mechanical Engineering*—																												
6·01. Europeans	8	8	25	26	14	14	29	31	20	20	19	21	39	42	21	22	24	24	38	42	2	3	17	17	4	4	260	274
6·02. Indians—																												
(*a*) Hindus	1	..	4	4	..	..	3	3	..	..	5	4	9	10	8	6	1	1	6	5	..	..	4	4	..	..	41	37
(*b*) Muslims	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	3	..	..	..	..	..	..	4	4
(*c*) Anglo-Indians and domiciled Europeans.	1	1	..	..	..	..	..	..	1	2	..	..	4	3	1	..	..	..	1	2	..	..	..	..	..	1	8	9
(*d*) Other classes†	..	..	1	1	..	..	..	..	..	..	3	2	1	2	..	1	1	1	..	..	..	..	..	..	..	..	6	7
(*e*) Total	3	2	6	5	..	..	3	3	1	2	8	6	14	15	9	7	2	2	9	10	..	..	4	4	..	1	59	57
6·03. GRAND TOTAL	11	10	31	31	14	14	32	34	21	22	27	27	53	57	30	29	26	26	47	52	2	3	21	21	4	5	319	331

7. Stores Department—																												
7·01. Europeans	1	1	6	6	1	1	6	7	2	2	4	3	8	8	5	4	6	6	8	8	..	..	3	3	..	..	50	49
7·02. Indians— (a) Hindus	..	..	1	1	..	..	1	1	1	2	1	1	2	1	..	..	1	1	3	3	..	..	1	1	..	..	11	11
(b) Muslims	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	..	..	..	..	..	..	..	..	..	..	2	2
(c) Anglo-Indians and domiciled Europeans.	..	..	2	2	..	1	..	..	1	1	2	2	3	4	..	..	..	..	..	..	..	..	2	2	..	..	10	12
(d) Other classes †	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	1	1
(e) Total	..	..	3	3	..	1	1	1	2	3	3	3	5	5	2	2	2	2	3	3	..	..	3	3	..	..	24	26
7·03. GRAND TOTAL	1	1	9	9	1	2	7	8	4	5	7	6	13	13	7	6	8	8	11	11	..	..	6	6	..	..	74	75
8. Other Departments—																												
8·01. Europeans	9	10	18	16	2	3	11	13	9	*11	1	1	36	40	7	9	11	11	1	..	..	..	6	6	23	20	134	*140
8·02. Indians— (a) Hindus	6	5	3	1	..	..	3	2	..	..	5	4	12	12	3	3	2	2	1	2	..	..	2	3	6	7	43	41
(b) Muslims	..	..	..	..	..	..	..	..	..	..	1	1	1	1	..	..	..	..	1	1	..	..	..	..	..	..	3	3
(c) Anglo-Indians and domiciled Europeans.	2	2	1	1	..	..	..	..	1	..	..	..	6	7	1	1	..	..	..	..	..	..	..	..	5	6	16	17
(d) Other classes†	..	..	..	..	..	..	4	3	..	..	..	..	1	1	2	1	2	2	1	1	..	..	..	..	1	..	11	8
(e) Total	8	7	4	2	..	..	7	5	1	..	6	5	20	21	6	5	4	4	3	4	..	..	2	3	12	13	73	69
8·03. GRAND TOTAL	17	17	22	18	2	3	18	18	10	*11	7	6	56	61	13	14	15	15	4	4	..	..	8	9	35	33	207	*209
9. Total—																												
9·01. Europeans	41	43	137	*148	58	59	125	135	90	96	70	77	188	194	165	179	106	107	149	*158	11	12	82	*85	48	54	1,270	*1,347
9·02. Indians— (a) Hindus	16	16	43	42	6	5	29	30	4	5	47	36	78	77	30	26	31	32	67	*92	2	2	45	52	15	14	413	*429
(b) Muslims	4	4	8	7	3	3	2	2	1	1	6	7	11	15	10	8	..	..	20	*21	2	2	2	3	4	4	73	*77
(c) Anglo-Indians and domiciled Europeans.	9	9	15	16	1	2	3	5	9	10	7	11	37	35	12	8	8	6	11	16	..	..	8	10	10	15	130	143
(d) Other classes †	1	1	4	5	..	..	14	13	7	7	4	3	5	7	8	9	5	5	12	*14	..	..	2	2	1	2	63	*68
(e) Total	30	30	70	70	10	10	48	50	21	23	64	57	131	134	60	51	44	43	110	143	4	4	57	67	30	35	679	*717
9·03. GRAND TOTAL	71	73	207	*218	68	69	173	185	111	119	134	134	319	328	225	230	150	150	259	*301	15	16	139	*152	78	89	1,949	*2,064
10. Increase + Decrease—																												
10·01. Europeans	—2	..	—11	..	—1	..	—10	..	—6	..	—7	..	—6	..	—14	..	—1	..	—9	..	—1	..	—3	..	—6	..	—77	..
10·02. Indians— (a) Hindus	..	..	+1	..	+1	..	—1	..	—1	..	+11	..	+1	..	+4	..	—1	..	—25	..	..	..	—7	..	+1	..	—16	..
(b) Muslims	..	..	+1	..	..	..	..	..	..	..	—1	..	—4	..	+2	..	..	..	—1	..	..	..	—1	..	..	..	—4	..
(c) Anglo-Indians and domiciled Europeans.	..	..	—1	..	—1	..	—2	..	—1	..	—4	..	+2	..	+4	..	+2	..	—5	..	..	..	—2	..	—5	..	—13	..
(d) Other classes †	..	..	—1	..	..	..	+1	..	..	..	+1	..	—2	..	—1	..	..	..	—2	..	..	..	..	..	—1	..	—5	..
(e) Total	..	..	..	..	..	..	—2	..	—2	..	+7	..	—3	..	+9	..	+1	..	—33	..	..	..	—10	..	—5	..	—38	..
10·03. GRAND TOTAL	—2	..	—11	..	—1	..	—12	..	—8	..	..	..	—9	..	—5	..	..	..	—42	..	—1	..	—13	..	—11	..	—115	..
11. Percentage of total—																												
11·01. Europeans	57·8	58·9	66·2	*67·9	85·3	85·5	72·3	73·0	81·1	80·7	52·2	*57·5	58·9	59·1	73·3	77·8	70·7	71·3	57·5	*52·5	73·3	75·0	59·0	*55·9	61·6	60·7	65·2	*65·3
11·02. Indians— (a) Hindus	22·5	21·9	20·8	*19·3	8·8	7·3	16·7	16·2	3·6	4·2	35·1	*26·9	24·5	23·5	13·3	11·8	20·7	21·3	25·9	*30·5	13·3	12·5	32·4	*34·2	19·2	15·7	21·2	*20·8
(b) Muslims	5·6	5·5	3·9	3·2	4·4	4·3	1·2	1·1	0·9	0·9	4·5	5·2	3·4	4·6	4·5	3·5	..	..	7·7	*7·0	13·4	12·5	1·4	2·0	5·1	4·5	3·7	*3·7
(c) Anglo-Indians and domiciled Europeans.	12·7	12·3	7·2	*7·3	1·5	2·9	1·7	2·7	8·1	8·4	5·2	8·2	11·6	10·7	5·3	3·5	5·3	4·0	4·3	*5·3	..	..	5·8	*6·6	12·8	16·9	6·7	6·9
(d) Other classes †	1·4	1·4	1·9	2·3	..	..	8·1	7·0	6·3	5·8	3·0	2·2	1·6	2·1	3·6	3·9	3·3	3·4	4·6	*4·7	..	..	1·4	*1·3	1·3	2·2	3·2	3·3

* Revised figures.

† Includes figures for Sikhs and Indian Christians.

APPENDIX F—*contd.*

Statement of Subordinates, drawing Rs. 250 per mensem and over or on scales of pay rising to Rs. 250 per mensem and over, employed on Class I Railways, Railway Board and other Railway Offices (excluding H. E. H. the Nizam's State and Jodhpur Railways) on 1st April 1932 as compared with 1st April 1931.

Item.	A. B.		B. N.		B. & N. W.		B., B. & C. I.		BURMA.		E. B.		E. I.		G. I. P.		M. & S. M.		N. W.		R. & K.		S. I.		TOTAL.	
	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1. *Agency Department*—																										
1·01. Europeans	..	..	..	..	..	..	..	..	..	..	2	3	1	1	3	1	..	..	1	..	..	..	..	..	7	5
1·02. Indians—																										
(*a*) Hindus	2	2	5	5	1	1	11	11	5	5	12	13	14	15	3	3	2	2	6	9	1	1	3	3	65	70
(*b*) Muslims	..	..	..	..	..	..	3	3	1	1	..	..	1	1	..	..	..	..	1	1	..	..	..	..	6	6
(*c*) Anglo-Indians and domiciled Europeans	1	1	2	2	1	1	3	3	2	3	..	..	1	1	1	3	..	1	5	2	..	..	1	1	17	18
(*d*) Other classes †	..	..	..	..	..	..	6	7	2	3	..	..	..	..	4	4	..	..	..	1	..	..	..	..	12	15
(*e*) Total	3	3	7	7	2	2	23	24	10	12	12	13	16	17	8	10	2	3	12	13	1	1	4	4	100	109
1·03. GRAND TOTAL	3	3	7	7	2	2	23	24	10	12	14	16	17	18	11	11	2	3	13	13	1	1	4	4	107	114
2. *Accounts Department*—																										
2·01. Europeans	..	..	..	..	..	..	1	1	..	..	1	..	10	16	7	1	..	..	1	..	..	..	..	..	20	18
2·02. Indians—																										
(*a*) Hindus	..	..	30	24	5	5	27	24	10	11	31	38	64	83	18	18	6	7	32	*36	1	1	17	19	241	*266
(*b*) Muslims	..	..	..	..	2	2	..	1	..	..	2	5	3	3	1	..	..	..	17	*16	..	..	1	1	26	*23
(*c*) Anglo-Indians and domiciled Europeans	..	..	35	38	6	7	13	13	10	11	3	6	11	12	11	14	9	10	2	4	..	..	5	5	105	120
(*d*) Other classes †	..	..	..	..	1	1	9	14	..	..	..	..	1	1	9	9	2	2	13	*9	..	..	..	..	35	*36
(*e*) Total	..	..	65	62	14	15	49	52	20	22	36	49	79	99	39	41	17	19	64	*65	1	1	23	25	407	*450
2·03. GRAND TOTAL	..	..	65	62	14	15	50	53	20	22	37	49	89	115	46	42	17	19	65	*65	1	1	23	25	427	*468
3. *Engineering Department*—																										
3·01. Europeans	1	1	8	7	..	1	13	13	1	1	8	9	51	52	27	31	8	9	31	*49	2	2	3	*4	153	*179
3·02. Indians—																										
(*a*) Hindus	10	9	59	58	7	6	72	76	26	43	40	*43	118	117	67	71	16	16	111	*133	..	..	21	31	547	*603
(*b*) Muslims	2	2	5	8	3	4	13	13	2	1	3	4	9	10	16	22	..	..	73	*78	1	1	1	1	128	*144
(*c*) Anglo-Indians and domiciled Europeans	5	5	47	52	13	15	10	11	30	36	19	21	115	114	65	64	27	26	40	36	1	1	13	*17	385	*398
(*d*) Other classes †	2	3	5	5	..	..	30	31	8	10	4	*4	5	6	33	32	..	..	46	*38	..	..	2	3	135	*132
(*e*) Total	19	19	116	123	23	25	125	131	66	90	66	72	247	247	181	189	43	42	270	*285	2	2	37	*52	1,195	*1,277
3·03. GRAND TOTAL	20	20	124	130	23	26	138	144	67	91	74	81	298	299	208	220	51	51	301	*334	4	4	40	56	1,348	*1,456

4. *Transportation*—																										
4·01. Europeans	1	1	25	27	4	11	36	36	5	7	18	27	113	116	190	201	..	..	116	125	1	..	10	8	519	559
4·02. Indians—																										
(a) Hindus	7	7	44	42	3	3	108	111	18	15	27	38	56	52	81	68	4	4	65	*76	..	..	14	15	427	*431
(b) Muslims	..	..	6	5	1	1	6	6	3	3	1	1	9	10	14	13	..	..	24	*22	..	..	1	1	65	*62
(c) Anglo-Indians and domiciled Europeans	10	10	50	52	16	8	47	51	79	*83	54	58	173	182	476	521	28	28	79	*88	5	7	22	23	1,039	*1,111
(d) Other classes †	1	1	3	3	..	..	58	62	22	*19	..	2	3	2	90	92	..	..	35	35	..	..	..	..	212	*216
(e) Total	18	18	103	102	20	12	219	230	122	*120	82	99	241	246	661	694	32	32	203	*221	5	7	37	39	1,743	*1,820
4·03. Grand total	19	19	128	129	24	23	255	266	127	*127	100	126	354	362	851	895	32	32	319	*346	6	7	47	47	2,262	*2,379
5. *Commercial*—																										
5·01. Europeans	..	..	Included under Transportation.		..	2	Included under Transportation.						..	..	9	10	Included under Transportation.		5	9	Included under Transportation.		..	1	14	22
5.02. Indians—																										
(a) Hindus	2	2	..	..	..	..	..	..	..	..	..	..	26	27	31	34	..	..	13	14	..	..	4	4	76	81
(b) Muslims	..	..	..	..	..	..	..	..	..	..	..	..	3	4	3	4	..	..	6	4	..	..	..	..	12	12
(c) Anglo-Indians and domiciled Europeans	..	..	..	..	..	..	..	..	..	..	..	..	13	13	8	8	..	..	4	3	..	..	..	..	25	24
(d) Other classes †	..	..	..	..	..	..	..	..	..	..	..	..	..	1	5	6	..	..	7	3	..	..	..	..	12	10
(e) Total	2	2	..	..	..	..	..	..	..	..	..	..	42	45	47	52	..	..	30	24	..	..	4	4	125	127
5·03. Grand total	2	2	..	..	..	2	..	..	..	..	..	..	42	45	56	62	..	..	35	33	..	..	4	5	139	149
6. *Mechanical Engineering*—																										
6·01. Europeans	11	14	176	169	11	12	63	66	21	17	48	63	327	346	60	60	72	77	179	*208	4	4	27	29	999	*1,065
6·02. Indians—																										
(a) Hindus	3	3	12	12	..	..	47	47	11	9	27	26	106	116	22	23	4	5	46	58	1	1	23	18	302	318
(b) Muslims	1	1	2	2	..	..	9	11	..	..	4	3	14	15	1	1	..	..	58	*52	..	..	4	..	90	*85
(c) Anglo-Indians and domiciled Europeans	15	14	211	228	19	23	280	295	123	127	92	84	530	513	103	117	102	111	195	*194	3	4	121	121	1,794	*1,831
(d) Other classes†	3	4	8	9	..	..	47	53	20	21	5	4	8	9	28	28	5	7	55	51	1	1	4	3	184	190
(e) Total	22	22	233	251	19	23	388	406	154	157	128	117	658	653	154	169	111	123	354	*355	5	6	149	142	2,370	*2,424
6·03. Grand total	33	36	409	420	30	35	446	472	175	174	176	180	985	999	214	229	183	200	533	*563	9	10	176	171	3,369	*3,489
7. *Stores Department*—																										
7·01. Europeans	..	..	..	..	..	..	3	3	..	..	1	1	6	6	3	4	1	1	7	4	..	..	..	..	21	19
7·02. Indians—																										
(a) Hindus	1	1	7	7	..	..	6	7	4	4	12	12	21	18	2	3	1	1	20	18	..	..	2	2	76	73
(b) Muslims	..	..	..	..	..	..	1	1	..	..	..	..	1	2	..	..	..	..	7	8	..	..	..	..	9	11
(c) Anglo-Indians and domiciled Europeans	1	1	10	12	1	1	..	1	..	..	5	5	28	26	2	2	3	3	7	10	..	..	3	3	60	64
(d) Other classes †	..	..	2	2	..	..	4	4	..	..	..	..	..	..	2	1	..	..	5	5	..	..	..	..	13	12
(e) Total	2	2	19	21	1	1	11	13	4	4	17	17	50	46	6	6	4	4	39	41	..	..	5	5	158	160
7·03. Grand total	2	2	19	21	1	1	14	16	4	4	18	18	56	52	9	10	5	5	46	45	..	..	5	5	179	179

* Revised figures.

† Includes figures for Sikhs and Indian Christians.

APPENDIX F—*concld.*

Statement of Subordinates, drawing Rs. 250 per mensem and over or on scales of pay rising to Rs. 250 per mensem and over, employed on Class 1 Railways, Railway Board and other Railway Offices (excluding H. E. H. the Nizam's State and Jodhpur Railways) on 1st April 1932 as compared with 1st April 1931—concld.

Item.	A. B.		B. N.		B. & N. W.		B., B. & C. I.		BURMA.		E. B.		E. I.		G. I. P.		M. & S. M.		N. W.		R. & K.		S. I.		TOTAL.	
	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.	1932.	1931.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
8. *Other Departments*—																										
8·01. Europeans	4	4	28	34	3	2	15	15	..	..	..	1	62	65	1	1	2	2	3	*9	..	..	2	3	120	*136
8·02. Indians—																										
(*a*) Hindus	7	7	39	40	2	..	34	34	18	15	11	12	64	66	9	12	14	14	11	6	..	..	3	2	212	208
(*b*) Muslims	..	..	2	1	..	..	1	1	5	5	2	2	6	5	..	..	..	..	4	1	..	..	1	1	21	16
(*c*) Anglo-Indians and domiciled Europeans	3	3	48	50	10	12	16	19	2	3	3	5	60	60	8	8	11	11	13	14	1	1	1	..	176	186
(*d*) Other classes†	..	..	4	4	..	..	14	16	12	13	..	..	2	2	13	13	2	3	5	*4	..	..	3	2	55	*57
(*e*) Total	10	10	93	95	12	12	65	70	37	36	16	19	132	133	30	33	27	28	33	*25	1	1	8	5	464	*467
8·03. GRAND TOTAL	14	14	121	129	15	14	80	85	37	36	16	20	194	198	31	34	29	30	36	*34	1	1	10	8	584	*603
9. *Railway Board and other Railway offices*—																										
9·01. Europeans	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	4
9·02. Indians—																										
(*a*) Hindus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	113	145
(*b*) Muslims	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	18	22
(*c*) Anglo-Indians and domiciled Europeans	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	28	27
(*d*) Other classes†	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15	21
(*e*) Total	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	174	215
9·03. GRAND TOTAL	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	176	219
10. *Total*—																										
10·01. Europeans	17	20	237	237	18	28	131	134	27	25	78	104	570	602	300	309	83	89	343	*404	7	6	42	*45	1,855	2,007
10·02. Indians—																										
(*a*) Hindus	32	31	196	188	18	15	305	310	92	102	160	*182	469	494	233	232	47	49	304	*350	3	3	87	94	2,059	*2,195
(*b*) Muslims	3	3	15	16	6	7	33	36	11	10	12	15	46	50	35	40	..	..	190	*182	1	1	5	4	375	*386
(*c*) Anglo-Indians and domiciled Europeans	35	34	403	434	66	67	369	393	246	*263	176	179	931	921	674	737	180	190	345	351	10	13	166	*170	3,629	*3,779
(*d*) Other classes†	6	8	22	23	1	1	168	187	64	*66	9	*10	19	21	184	185	9	12	166	*146	1	1	9	8	673	*689
(*e*) Total	76	76	636	661	91	90	875	926	413	*441	357	386	1,465	1,486	1,126	1,194	236	251	1,005	*1,029	15	18	267	*276	6,736	*7,049
10·03. GRAND TOTAL	93	96	873	898	109	118	1,006	1,060	440	*466	435	490	2,035	2,088	1,426	1,503	319	340	1,348	*1,433	22	24	309	321	8,591	*9,056

11. *Increase + Decrease*—																										
11·01. Europeans	−3	..	..	..	−10	..	−3	..	+2	..	−26	..	−32	..	−9	..	−6	..	−61	..	+1	..	−3	..	−152	..
11·02. Indians—																										
(a) Hindus	+1	..	+8	..	+3	..	−5	..	−10	..	−22	..	−25	..	+1	..	−2	..	−46	..	..	..	−7	..	−136	..
(b) Muslims	..	..	−1	..	−1	..	−3	..	+1	..	−3	..	−4	..	−5	..	..	..	+8	..	..	..	+1	..	−11	..
(c) Anglo-Indians and domiciled Europeans	+1	..	−31	..	−1	..	−4	..	−17	..	−3	..	+10	..	−63	..	−10	..	−6	..	−3	..	−4	..	−150	..
(d) Other classes †	−2	..	−1	..	..	..	−19	..	−2	..	−1	..	−2	..	−1	..	−3	..	+20	..	..	..	+1	..	−16	..
(e) Total	..	..	−25	..	+1	..	−51	..	−28	..	−29	..	−21	..	−68	..	−15	..	−24	..	−3	..	−9	..	−313	..
11·03. GRAND TOTAL	−3	..	−25	..	−9	..	−54	..	−26	..	−55	..	−53	..	−77	..	−21	..	−85	..	−2	..	−12	..	−465	..
12. *Percentage of total*—																										
12·01. Europeans	18·3	20·3	27·2	26·4	16·5	23·7	13·0	12·6	6·1	*5·4	17·9	21·2	28·0	28·8	21·0	20·6	26·0	26·2	25·4	*28·2	31·8	25·0	13·6	*14·0	21·6	*22·2
12·02. Indians—																										
(a) Hindus	34·4	32·3	22·5	20·9	16·5	12·7	30·3	29·2	20·9	*21·9	36·8	*37·1	23·0	23·7	16·4	15·4	14·7	14·4	22·6	*24·4	13·6	12·5	28·2	*29·3	24·0	*24·2
(b) Muslims	3·2	3·1	1·7	1·8	5·5	5·9	3·5	3·4	2·5	*2·1	2·8	3·1	2·3	2·4	2·5	2·7	..	..	14·1	*12·7	4·5	4·2	1·6	1·2	4·4	4·3
(c) Anglo-Indians and domiciled Europeans	37·7	35·4	46·1	48·3	60·6	56·8	36·7	37·1	55·9	56·4	40·5	36·5	45·8	44·1	47·2	49·0	56·5	55·9	25·6	*24·5	15·5	54·2	53·7	*53·0	42·2	*41·7
(d) Other classes †	6·4	8·4	2·5	2·6	0·9	0·9	16·7	17·7	14·6	*14·2	2·0	*2·0	0·9	1·0	12·9	12·8	2·8	3·5	12·3	*10·2	4·6	4·1	2·9	2·5	7·8	7·6

* Revised figures.

† Includes figures for Sikhs and Indian Christians.

APPENDIX G.

Statement showing the number of appointments created and vacancies which occurred among officers of Gazetted rank on State Railways and of corresponding rank on Companies' Railways (Class I) excluding H. E. H. the Nizam's State and Jodhpur Railways, and how they were filled during 1931-32.

Departments.	Number of vacancies which occurred in previous years not filled in those years remaining to be filled.	Number of new appointments created during the year.	Number of vacancies which occurred during the year.	Number of appointments abolished during the year.	Number of net vacancies to be filled.	Number of vacancies not filled up during the year.	Number of vacancies actually filled.	FILLED BY — Europeans	FILLED BY — Indians — Hindus	FILLED BY — Indians — Muslims.	FILLED BY — Indians — Anglo-Indians and domiciled Europeans.	FILLED BY — Indians — * Other classes.	FILLED BY — Indians — TOTAL.
1	2	3	4	5	6 (a)	7 (a)	8	9	10	11	12	13	14
State Worked Railways.													
1. Agency	1	..	..	..	1	..	1(b)	..	..	..	..	..	..
2. Accounts	..	..	3	..	3	2	1	1	..	..	..	..	..
3. Engineering	2	..	9	56	..	..	5	1	2	..	2	..	4
4. Transportation and Commercial.	2	..	12	28	..	..	19	2	6	1	10	..	17
5. Mechanical	..	..	10	15	..	..	6	3	..	..	3	..	3
6. Stores	2	..	3	..	5	5	..	..	..	..	..	..	..
7. Other Departments	..	..	3	6	..	..	1	..	..	..	1	..	1
8. TOTAL 1931-32	7	..	40	105	..	..	33	7	8	1	16	..	25
8. TOTAL 1930-31	25	1	41	..	67	7	60	12	20	5	19	4	48
9. Percentage of Europeans to number of vacancies filled. 1931-32	22·0												
9. Percentage of Europeans to number of vacancies filled. 1930-31	20·0												
10. Percentage of Indians to number of vacancies filled. 1931-32	78·0												
10. Percentage of Indians to number of vacancies filled. 1930-31	80·0												
Other Railways.													
Assam Bengal Railway.													
1. Agency	..	..	..	..	..	..	..	..	..	..	..	..	..
2. Accounts	..	1	..	..	1	..	1	..	1	..	..	..	1
3. Engineering	..	..	..	1	—1	..	—1	..	—1	..	..	..	—1
4. Transportation and Commercial.	..	..	..	..	..	..	..	..	..	..	..	..	..
5. Mechanical	1	..	2	1	2	..	2	1	1	..	..	..	1
6. Stores	..	..	..	..	..	..	..	..	..	..	..	..	..
7. Other Departments	..	..	6	..	6	1	5	5	..	..	..	..	..
8. TOTAL 1931-32	1	1	8	2	8	1	7	6	1	..	..	..	1
8. TOTAL 1930-31	2	2	3	2	5	1	4	2	2	..	..	..	2
9. Percentage of Europeans to number of vacancies filled. 1931-32	85·7												
9. Percentage of Europeans to number of vacancies filled. 1930-31	50·0												
10. Percentage of Indians to number of vacancies filled. 1931-32	14·3												
10. Percentage of Indians to number of vacancies filled. 1930-31	50·0												

(*a*) The number of appointments abolished during the year (column 5) is largely due to the withdrawal of the provision made in March 1931 for deputations and for construction projects, surveys and open line programme works from the permanent cadres. As stated in the last report, credit had not been taken therein for the additions made to the cadre on this account for March 1931. Columns 6 and 7 are therefore left incomplete and for the same reason it is not possible to co-relate the figures in column 8 to those in the preceding columns.

(*b*) Since the primary object of this statement is to show the number of new entrants into Gazetted services by race and community, the vacancy in the Agency Department which was filled by transfer of an existing officer from another Department is disregarded for the purpose of columns 9 and 14.

* Includes Sikhs and Indian Christians.

APPENDIX G—*contd.*

Statement showing the number of appointments created and vacancies which occurred among officers of Gazetted rank on State Railways and of corresponding rank on Companies' Railways (Class I) excluding H. E. H. the Nizam's State and Jodhpur Railways, and how they were filled during 1931-32—contd.

Departments.	Number of vacancies which occurred in previous years not filled in those years remaining to be filled.	Number of new appointments created during the year.	Number of vacancies which occurred during the year.	Number of appointments abolished during the year.	Number of net vacancies to be filled.	Number of vacancies not filled up during the year.	Number of vacancies actually filled.	FILLED BY: Europeans.	FILLED BY: Indians: Hindus.	FILLED BY: Indians: Muslims.	FILLED BY: Indians: Anglo-Indians and domiciled Europeans.	FILLED BY: Indians: * Other classes.	FILLED BY: Indians: TOTAL.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Bengal and North-Western Railway.													
1. Agency	..	..	..	..	..	..	..	..	..	..	..	..	..
2. Accounts	..	..	1	..	1	..	1	1	..	..	..	..	..
3. Engineering	..	1	..	..	1	1	..	..	..	..	..	..	..
4. Transportation and Commercial.	..	..	..	..	..	..	..	..	..	..	..	..	..
5. Mechanical	..	..	..	..	..	..	..	..	..	..	..	..	..
6. Stores	..	..	1	..	1	1	..	..	..	..	..	..	..
7. Other Departments	..	..	1	..	1	..	1	1	..	..	..	..	..
8. TOTAL 1931-32	..	1	3	..	4	2	2	2	..	..	..	..	..
8. TOTAL 1930-31	..	1	6	..	7	2	5	1	..	3	1	..	4
9. Percentage of Europeans to number of vacancies filled. 1931-32	100·0												
1930-31	20·0												
10. Percentage of Indians to number of vacancies filled. 1931-32	*nil*												
1930-31	80·0												
Bengal Nagpur Railway.													
1. Agency	..	..	..	..	..	..	..	..	..	..	..	..	..
2. Accounts	2	..	2	..	4	1	3	1	1	..	1	..	2
3. Engineering	4	1	6	13	—2	3	—5	—3	1	—2	..	—1	—2
4. Transportation and Commercial.	4	..	2	..	6	3	3	1	..	..	2	..	2
5. Mechanical	3	..	5	..	8	5	3	2	..	1	..	..	1
6. Stores	2	..	1	2	1	..	1	1	..	..	..	..	..
7. Other Departments	..	..	1	..	1	..	1	..	1	..	..	..	1
8. TOTAL 1931-32	15	1	17	15	18	12	6	2	3	—1	3	—1	4
8. TOTAL 1930-31	9	14	14	16	21	9	12	4	5	..	..	3	8
9. Percentage of Europeans to number of vacancies filled. 1931-32	33·3												
1930-31	33·3												
10. Percentage of Indians to number of vacancies filled. 1931-32	66·7												
1930-31	66·7												
Bombay, Baroda and Central India Railway.													
1. Agency	1	..	1	..	2	2	..	..	..	..	..	..	..
2. Accounts	..	..	1	1	..	..	..	..	..	..	..	..	..
3. Engineering	7	1	4	4	7	7	..	..	..	..	..	..	..
4. Transportation and Commercial.	1	..	5	..	6	3	3	2	1	..	..	..	1
5. Mechanical	1	..	2	1	2	2	..	..	..	..	..	..	..
6. Stores	..	..	1	..	1	1	..	..	..	..	..	..	..
7. Other Departments	2	..	2	..	4	3	1	..	..	..	..	1	1
8. TOTAL 1931-32	12	1	16	6	22	18	4	2	1	..	..	1	2
8. TOTAL 1930-31	10	5	12	1	26	12	14	9	5	..	..	..	5
9. Percentage of Europeans to number of vacancies filled. 1931-32	50·0												
1930-31	64·3												
10. Percentage of Indians to number of vacancies filled. 1931-32	50·0												
1930-31	35·7												

* Includes Sikhs and Indian Christians.

APPENDIX G—*concld.*

Statement showing the number of appointments created and vacancies which occurred among officers of Gazetted rank on State Railways and of corresponding rank on Companies' Railways (Class I) excluding H. E. H. the Nizam's State and Jodhpur Railways, and how they were filled during 1931-32—concld.

Departments.	Number of vacancies which occurred in previous years not filled in those years remaining to be filled.	Number of new appointments created during the year.	Number of vacancies which occurred during the year.	Number of appointments abolished during the year	Number of net vacancies to be filled.	Number of vacancies not filled up during the year.	Number of vacancies actually filled.	FILLED BY — Europeans.	FILLED BY — INDIANS. — Hindus.	FILLED BY — INDIANS. — Muslims.	FILLED BY — INDIANS. — Anglo-Indians and domiciled Europeans.	FILLED BY — INDIANS. — * Other classes.	FILLED BY — INDIANS. — TOTAL.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Madras and Southern Mahratta Railway.													
1. Agency	..	..	1	..	1	..	1	..	1	..	1	..	1
2. Accounts	1	..	1	..	2	..	2	..	1	..	1	..	2
3. Engineering	3	..	1	4	..	2	—2	—1	—1	..	..	..	—1
4. Transportation and Commercial.	..	..	2	2	..	..	..	..	..	..	..	..	..
5. Mechanical	..	..	1	..	1	..	1	1	..	..	..	..	..
6. Stores	..	..	..	..	..	..	..	..	..	..	..	..	..
7. Other Departments	1	..	..	..	1	1	..	..	..	..	..	..	..
8. TOTAL 1931-32	5	..	6	6	5	3	2	..	..	..	2	..	2
8. TOTAL 1930-31	12	4	9	3	22	5	17	7	10	..	..	..	10
9. Percentage of Europeans to number of vacancies filled. 1931-32	*nil*												
9. Percentage of Europeans to number of vacancies filled. 1930-31	41·2												
10. Percentage of Indians to number of vacancies filled. 1931-32	100·0												
10. Percentage of Indians to number of vacancies filled. 1930-31	58·8												
Rohilkund and Kumaon Railway.													
1. Agency	..	..	..	..	..	..	..	..	..	..	..	..	..
2. Accounts	..	..	..	..	..	..	..	..	..	..	..	..	..
3. Engineering	..	..	..	..	..	..	..	..	..	..	..	..	..
4. Transportation and Commercial.	..	..	..	..	..	..	..	..	..	..	..	..	..
5. Mechanical	..	..	..	..	..	..	..	..	..	..	..	..	..
6. Stores	..	..	..	..	..	..	..	..	..	..	..	..	..
7. Other Departments	..	..	..	..	..	..	..	..	..	..	..	..	..
8. TOTAL 1931-32	..	..	..	..	..	..	..	..	..	..	..	..	..
8. TOTAL 1930-31	1	..	1	..	2	..	2	..	1	1	..	..	2
9. Percentage of Europeans to number of vacancies filled. 1931-32	*nil*												
9. Percentage of Europeans to number of vacancies filled. 1930-31	*nil*												
10. Percentage of Indians to number of vacancies filled. 1931-32	*nil*												
10. Percentage of Indians to number of vacancies filled. 1930-31	100·0												
South Indian Railway.													
1. Agency	..	1	..	..	1	..	1	..	..	..	1	..	1
2. Accounts	..	..	1	1	..	..	..	..	..	..	..	..	..
3. Engineering	3	2	6	5	6	6	..	..	..	..	..	..	..
4. Transportation and Commercial.	5	..	1	1	5	3	2	..	2	..	..	..	2
5. Mechanical	1	..	3	2	2	2	..	..	..	..	..	..	..
6. Stores	1	..	1	..	2	2	..	..	..	..	..	..	..
7. Other Departments	1	..	..	..	1	1	..	..	..	..	..	..	..
8. TOTAL 1931-32	11	3	12	9	17	14	3	..	2	..	1	..	3
8. TOTAL 1930-31	5	20	10	13	22	11	11	2	4	1	4	..	9
9. Percentage of Europeans to number of vacancies filled. 1931-32	*nil*												
9. Percentage of Europeans to number of vacancies filled. 1930-31	18·2												
10. Percentage of Indians to number of vacancies filled. 1931-32	100·0												
10. Percentage of Indians to number of vacancies filled. 1930-31	81·8												

* Includes Sikhs and Indian Christians.

APPENDIX H.

Officers of the Railway Department (Railway Board) on 31st March, 1932.

The Hon'ble Sir GEORGE RAINY, K.C.S.I., K.C.I.E., I.C.S., Member of Council of Governor General.

Railway Board.

Mr. T. G. Russell	Chief Commissioner of Railways.
Sir Alan Parsons, Kt., C.I.E., I.C.S. .	Financial Commissioner of Railways.
Mr. A. M. Hayman, O.B.E. . .	Member.
Mr. M. W. Brayshay	Do.

Mr. F. J. Page, O.B.E. . . .	Director, Mechanical Engineering.
Mr. C. P. Colvin, O.B.E. . . .	Director, Traffic (on leave).
Mr. F. D'Souza	Director, Traffic (Offg.).
Mr. P. R. Rau, M.A.	Director, Finance.
Mr. J. C. Highet, F.C.H. . . .	Director, Establishment (on deputation).
Mr. P. B. Chandwani, M.A. . . .	Director, Establishment (Offg.).
Mr. P. H. Maflin, O.B.E., M.C. . .	Secretary (on leave).
Mr. J. F. Blackwood	Secretary (Offg.).
Mr. H. G. Salmond	Deputy Director, Civil Engineering (Offg.)
Mr. T. G. Creighton	Deputy Director, Mechanical Engineering (Offg.).
Mr. E. V. MacLean	Deputy Director, Traffic and Statistics (Offg.).
Mr. P. C. Chopra	Deputy Director, Establishment (Offg.).
Mr. T. S. Sankara Aiyar, B.A., B.E. .	Deputy Director, Finance (On deputation).
Khan Bahadur Barkat Ali . . .	Do. do. (Offg.).
Mr. E. C. Rundlett	Chief Superintendent.

Honorary Assistant Personnel Officer.

Rai Bahadur Ishar Das Puri . . .	Honorary Assistant Personnel Officer (on leave).

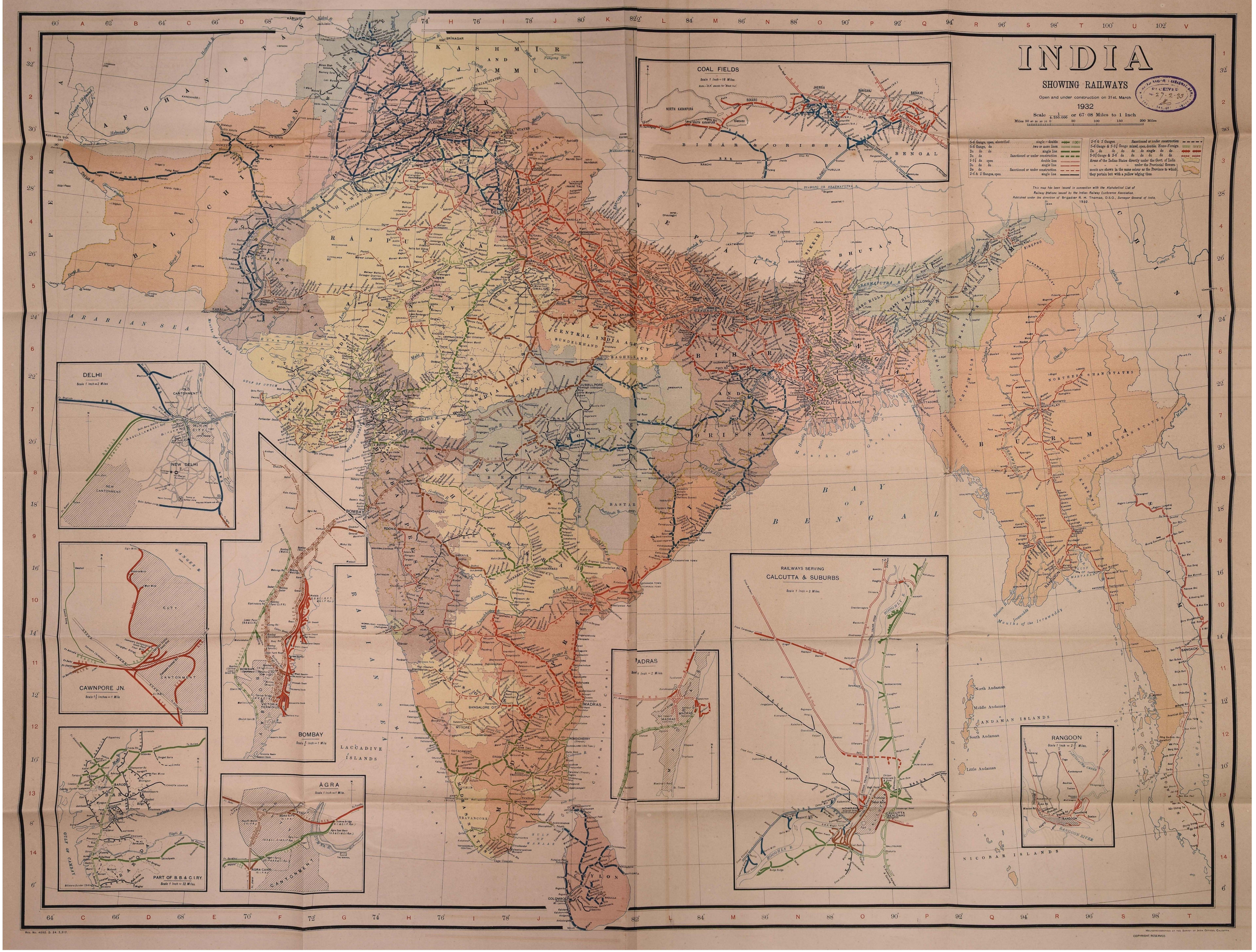
Attached Officers.

Major H. W. Wagstaff, M.C., R.E. .	Supervisor of Railway Labour.
Mr. H. C. B. Jollye, B.A. . . .	Timber Advisory Officer.
Mr. K. M. Hassan	Officer on Special Duty.
Mr. W. E. Smith	Do. do.
Mr. B. T. Singh	Do. do.
Mr. C. J. Potts	Do. do.

Controller of Railway Accounts.

Mr. M. K. Mitra, M.A. . . .	Controller of Railway Accounts (on leave).
Mr. L. S. Deane	do do (Offg.).
Mr. I. S. Puri, M.A.	Deputy Controller of Railway Accounts.
Mr. Yaqub Shah, M.A.	Assistant Controller of Railway Accounts.
Mr. Gopal Nath Mehra	Assistant Accounts Officer.

MGIPC—L—X-13(PD)—7-2-33—1,110.



INDIA
SHOWING RAILWAYS
Open and under construction on 31st. March
1932
Scale 1/4,250,000 or 67·08 Miles to 1 Inch
Miles 50 40 30 20 10 0 50 100 150 200 Miles
5-6 Gauge, open, electrified ... single – double
5-6 Gauge, do ... two or more lines
Do do do ... single line
Do do ... Sanctioned or under construction
3-3⅜ do open ... double line
Do do do ... single line
Do do ... Sanctioned or under construction
2-6 & 2 Gauges, open ... single line
2-6 & 2 Gauges, ... Sanctioned or under construction
5-6 Gauge & 3-3⅜ Gauge mixed, open, double; Home-Foreign
Do do do do do do single do do
3-3⅜ Gauge & 2-6 do do do do do do
Areas of the Indian States directly under the Govt. of India
" " " " under the Provincial Governments are shown in the same colour as the Province to which they pertain but with a yellow edging thus.
This map has been issued in connection with the Alphabetical List of Railway Stations issued by the Indian Railway Conference Association.
Published under the direction of Brigadier R. H. Thomas, D.S.O., Surveyor General of India, 1932.
RECEIVED 27-2-33
COAL FIELDS
DELHI
CAWNPORE JN.
PART OF B.B. & C.I. RY.
BOMBAY
AGRA
MADRAS
RAILWAYS SERVING CALCUTTA & SUBURBS
RANGOON
ARABIAN SEA
BAY OF BENGAL
ANDAMAN ISLANDS
NICOBAR ISLANDS
LACCADIVE ISLANDS
CEYLON
BURMA
AFGHANISTAN
BALUCHISTAN
KASHMIR AND JAMMU
RAJPUTANA
CENTRAL INDIA AGENCY
BIHAR
ORISSA
BENGAL
NEPAL
BHUTAN
Rec. No. 4090. D. 34. 3,910.
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